P. A. C. No. 301

PUBLIC ACCOUNTS COMMITTEE (1971-72)

(FIFTH LOK SABHA)

ELEVENTH REPORT

[Audit Report (Railways), 1970 and Appropriation Accounts (Railways), 1968-69]

LOK SABHA SECRETARIAT
NEW DELHI

July, 1971/Sravana 1893 (Saka)

Price : Rs. 3.80 Paise

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[illegible]	[illegible]	3	Has	Had
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352	9.56	4	over	ever
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PART II*

Minutes of the sittings of the Public Accounts Committee held on :

16-11-1970 (AN)
17-11-1970 (AN)
18-11-1970 (AN)
20-11-1970 (AN)
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(1971-72)

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*Since resigned from the committee w. e. f. 17-6-1971.

6. The Committee would also like to express their thanks to the Chairman and Members of the Railway Board and representatives of the Ministries of Supply, Steel & Heavy Engineering, Industrial Development & Internal Trade and Education & Youth Services, for the cooperation extended by them in giving information to the Committee.

ERA SEZHIYAN,
Chairman,
Public Accounts Committee.

NEW DELHI;
July 26, 1971.
Sravana 4, 1893 (*Saka*).

FINANCIAL RESULTS OF WORKING OF THE RAILWAYS

Financial Results

Audit paragraph

1.1. For the third year in succession the working of the Railways showed a deficit in 1968-69. Against a nominal surplus of Rs. 1.00 crore anticipated in the Budget, the accounts for the year closed with a deficit of Rs. 7.86 crores which was made good by withdrawal of an equivalent amount from the Revenue Reserve Fund. The balance in the Revenue Reserve Fund at the end of the year stood at Rs. 3.49 crores.

1.2. The deficit occurred mainly due to an increase of Rs. 16.57 crores in the Revenue expenditure which was partly counter-balanced by an increase of Rs. 6.38 crores in the gross Receipts and a reduction of Rs. 1.33 crores in the payments to General Revenues:—

(In crores of Rupees)

Particulars	Budget	Actuals	Variation
(1) Gross Receipts	892·69	899·07	(+) 6·38
Deduct			
(2) (a) Revenue Expenditure	739·69	756·26	(+) 16·57
(b) Payment to General Revenues	152·00	150·67	(—) 1·33
(3) Surplus/deficit	(+)1·00	(—) 7·86	(—) 8·86

The amount of Rs. 150.67 crores paid to General Revenue comprised:—

(In crores of rupees)

Payment in lieu of passenger fare tax	16·25
Payment to assist the states for financing saftey works	1·58
Interest on loan capital at the average borrowing rate of the Central Govt. applicable to commercial undertakings	122·30
Balance which is treated as contiribution	10·54

Deficit Railways

1.3. From the available statistics it is observed that the three Railways, namely, North Eastern, North-east Frontier and Southern were the deficit railways. The data regarding their gross receipts, working expenses, net revenue position and capital-at-charge etc., are given below for the three years ended 1968-69:—

(Amount in crore o rupees)

Railways and the year	Gross Receipts	Working Expenses	Net revenue before payment of dividend	Dividend to General Rev.	Net deficit	Capital at charge	Operating ratio	Ratio of net revenue to capital at-charge
North Esatern								
1966-67	39·00	38·24	(—)0·27	5·27	(—)5·99	103·27	98·0	(—) 0·3
1967-68	36·67	41·36	(—)4·62	5·75	(—)10·37	104·31	109·8	(—) 4·4
1968-69	40·48	44·57	(—)4·70	5·85	(—)10·55	105·41	11·1	(—) 4·5
Northeast Frontier								
1966-67	30·82	38·18	(—) 7·92	1·40	(—) 9·32	187·27	123·8	(—) 4·2
1967-68	31·35	42·61	(—)11·80	2·78	(—)14·58	192.46	135·9	(—) 6·1
1968-69	32·36	45·56	(—)13·65	2·37	(—)16·02	198·91	140·8	(—) 6·9
Southern								
1966-67	73·02	68·74	(+) 3·52	14·54	(—)11·02	286·44	94··	(—) 1·2
1967-68	76·62	74·82	(+) 0·87	15·16	(—)14·39	295·07	97·7	(—) 0·3
1968-69	78·96	78·87	(—) 0·71	15·12	(—)15·83	299·50	99·9	(—) 0·2

1.4. An analysis of the figures given in the table above reveals that during 1968-69 the working expenses of these three Railways exceeded their gross receipts by Rs. 17.20 crores, which by itself is more than the total deficit on account of increase in revenue expenditure on all the Railways.

1.5. The increase in the gross receipts and working expenses in 1968-69 over 1966-67 on these three Railways and for the Railways as a whole is given in the table below:

Railways	Increase in Gross Receipts		Increase in Gross Working Expenses	
	Amount (in crores)	Percentage	Amount (in crores)	Percentage
North Eastern	1·48	3·8%	6·33	16·6%
Northeast Frontier	1·54	5·0%	7·38	19·3%
Southern	5·94	8·1%	10·13	14·7%
All Railways	130·06	16·9%	102·68	16·1%

1.6. It is seen from the above that the percentage increase in working expenses on these three Railways was very much higher than the percentage increase in gross receipts. The Committee desired to know the reasons for the disproportionate increase in the woking expenses of these three Railways. The Financial Commissioner, Railways, stated during evidence: "I would like to say at the outset that all these Railways are administrative units. They are not self-contained Railways in that sense. They have been divided into zones more for administrative convenience. And there are some inherent features in these Railways which result in the so-called deficits. For one thing, all these Railways are in the extremities of India so that they do not carry of the passenger traffic and goods traffic that pass through the heart of the country."

1.7. He also enumerated some of the handicaps from which these Railways suffered. According to the Financial Commissioner, Railways, these are:

(1) Low level of freight traffic compared to the total kilometrage;

(2) High proportion of metre gauge, which is intrinsically more uneconomic than broad gauge;

(3) Presence of more steep gradients on these Railways;

(4) More passenger traffic as compared to goods traffic on these Railways;

(5) Intense road-rail competition particularly on the Southern Railways;

(6) Heavy proportion of transhipment traffic on these Railways;

(7) Large proportion of stations per ten kilometers or 100 kilometres.

1.8. The Committee pointed out that all these factors were more or less present in the previous years also. The Financial Commissioner explained that deficits have been there in other years also although they varied from year to year. He added: "In fact, if we consider the general financial deterioration on the all-India basis the deterioration in the three Railways is more or less comparable. This has been continuing for several years and unless metre gauge operation is made more remunerative, which, I am afraid, is very difficult, it may still continue."

1.9. The table below gives the percentages of cost of staff, repairs & maintenance and fuel to total working expenses:

Railway	Year	Staff	Repairs & Maintenance	Fuel
North Eastern	1966-67	35·5	28·6	14·1
	1968-69	36·8	31·9	14·2
	increase in 1968-69 over 1966-67	1·3	3·3	0·1
Northeast Frontier	1966-67	30·9	27·3	12·0
	1968-69	30·4	31·7	11·0
	increase in 1968-69 over 1966-67	(—) 0·5	4·4	(—) 1·0
Southern	1966-67	30·6	25·8	18·3
	1968-69	31·3	27·0	21·0
	increase in 1968-69 over 1966-67	0·7	1·2	2·7
All Railways	1966-67	30·1	26·6	17·2
	1968-69	30·1	28·2	18 7
	increase in 1968-69 over 1966-67	0·5	1·6	1·5

1.10. From the above analysis of the working expenses of these three Railways and the Railways as a whole during 1966-67 and 1968-69, it is seen that the percentage of cost of repairs and maintenance to total working expenses registered a steep increase on the North Eastern and Northeast Frontier Railways while on the Southern Railway the increase occurred under cost of fuel.

1.11. The Committee enquired about the reasons for marked increase in working expenses of these three Railways. The Financial Commissioner explained that although there has been no increase in the number of staff as a result of the restrictive policy being followed by Railways, the total was not reduced because for additional work on new lines etc. Some posts have to be sanctioned. The increase in the cost of staff was mainly due to increase in dearness allowance, merger of dearness allowance with pay and revision of rates of running allowances. According to him the increase in the cost of fuel was due to increase in the price of coal as also the increase in traffic.

1.12. The Committee view with concern the disproportionate increase in the working expenses of Southern, North Eastern and Northeast Frontier Railways as compared to the increase in their gross receipts during 1968-69. The combined working expenses of these three Railways exceeded their gross receipts by Rs. 17.20 crores. This figure exceeds even the total increase in the Revenue expenditure on all RailFways during 1968-69 by Rs. 0.63 crores. This calls for a special drive for effecting economies on these Railways.

1.13. The Committee observe that the difference in percentages of increase in the gross receipts and working expenses of all Railways in 1968-69 over 1966-67 was not much. However, in the case of these three deficit Railways, the gap between the percentages of increase in working expenses and increase in gross receipts was very much pronounced. The Committee desire that the reasons for this widening gap should be studied with a view to taking remedial action and earning greater revenue on these Railways.

Economy measures

1.14. At the time of the presentation of the Budget in 1968-69 it was stated that there would be a deficit of Rs. 27 crores even after allowing for certain economies in working expenses expected to be effected by cutting out waste. Asked to state the steps taken to cut out wastage, the Chairman, Railway Board stated in evidence: ".....cutting out of waste actually cannot be quantified. Our efforts on cutting waste have been going on in all directions.

Fuel

1.17. The Committee drew attention to the reported decision taken in a meeting of Railway officials that efforts should be made to reduce the consumption of coal by a better control on receipts and issues and desired to know the outcome of these efforts. A representative of the Railway Board explained during evidence: "When coal is loaded in the collieries, we weigh a certain number of wagons, and when that receipt is received at the shed, the amount of weight shown in that receipt is taken on our books. In the meanwhile, however, when the wagon has travelled from the coal-fields to a running shed, like Mughalsarai and Lucknow or Allahabad, certain thefts have taken place. What we do is we only measure them in cubic contents, and the receipt will be used to make sure how much theft has taken place *en route*.

Secondly, about the issues we have trip rations for every driver, every service, every engine. Now these trip rations are supposed to be checked in the shed to find out whether a particular locomotive has consumed more coal on a particular trip or not. Previously, we did not have the data because there were lot of factors involved here. So, we are checking to find out whether the consumption has gone up because it is necessary to do so because of factors which could have been controlled or because somebody has stolen. There are the things over which we are trying to keep a close watch particularly about diesel oil because that is a very expensive commodity. We have started having flow meters at the receipt end and delivery end to make sure that the amount of diesel oil is very correctly recorded."

Repairs and Maintenance

1.18. As regards the increase in the cost of maintenance, a representative of the Railway Board stated, "In so far as the cost of maintenance is concerned, there are some legitimate reasons for the increase. Firstly, our total stock is going up. Secondly, the cost of materials has increased considerably in the past. Thirdly, we are using very much sophisticated equipment now for which the maintenance costs are higher than before. Thus, there are legitimate reasons for the cost of repairs and maintenance going up."

1.19. The Chairman, Railway Board added, "What is important is that if the cost of everything goes up, you cannot expect that the cost on repairs and maintenance of railway equipment will go down. We are the victims of every rise, steel, cement, coal etc. We are making an all-out effort to have economy in all respects, but I do not

know how much we can make up against all these rises.... I can assure you one thing, Sir, that we are much more vigilant now than any time before about our expenditure because of the rise in every sphere which is affecting us.....For stores, we try to reclaim every equipment for use by repairs or otherwise. We are trying our best to get all these things done. Inventories of our stores have been progressively brought down. That gives us some economy. By inventory reduction, we not only save in our cost, but also in payment of dividends. We are making all efforts and probably today it is the maximum than we ever did."

1.20. The Committee find that so far as the working expenses of Railways are concerned there is a persistent tendency towards increase from year to year. To some extent, this is inevitable in the context of rising prices and wages. In the circumstances Railways will have to make determined efforts not only to minimise waste but also to effect economies in their expenses. The Committee hope that the assured vigilance "now than anytime before" about expenditure would result in substantial economies. As a mere 5 per cent cut in the working expenses could turn the deficit of Railways into surplus, the Committee would like Government to make an all out effort to pull Railways out of the red.

North Eastern Railway—Resolution of unremunerative lines

Audit Paragraph

1.21. The Ministry of Railways have sanctioned the restoration of two dismantled lines on the North Eastern Railway, between Supaul and Thurbhita (April, 1967) and Thurbhita and Bhaptiahi (June, 1969)—a total stretch of 24.49 Kms. at a cost of Rs. 59.16 lakhs. These lines are expected to be unremunerative even after a period of eleven years from the date of their opening.

[Paragrah No. 45—Audit Report (Railways), 1970]

Uneconomic lines

1.22. While presenting the Budget for 1968-69 in February, 1968, it was started that the question of closing down unremunerative branch lines as speedily as possible was being pursued seriously and that utmost care would be taken to make a most judicious selection of the branch lines for closure.

1.23. However, during the Budget discussion (1969-70) the Minister of Railways gave an assurance in the Parliament that as a policy

there would be no dismantling of any line. In pursuance of the assurance, a high power committee headed by the Deputy Minister of Railways was constituted to suggest ways and means of improving the working of the uneconomic branch lines so as to make them economically viable.

1.24. In this connection the Financial Commissioner, Railways, stated before the Committee during evidence: The Uneconomic Branch Lines Committee under the Chairmanship of the Deputy Minister for Railways, which also included three Members of Parliament came to several conclusions. One was that, excepting three light Railways, all the other narrow gauge railways should be converted into the gauge of the neighbouring locality and in some cases extended also, so that they may be made viable. In accordance with this, they suggested that surveys should be held for all these lines. Government, however, could not accept this suggestion fully since surveys for all the lines would mean considerable expenditure. Government have, therefore, sanctioned surveys only for ten of these lines. As for the other measures, the Committee noted that the Railways are already taking steps on the following lines:

(a) Conversion of crossing stations into halt stations manned by a commercial clerk only instead of a Station Master or Assistant Station Master. But this has also been objected to by the State Governments because they do not want the stations to be down-graded from crossing stations into halt stations.

(b) Introduction of split shift duties. That means a man works for only an hour or two and then after an interval he goes on duty again.

(c) Reduction in strength of permanent way staff, rationalisation of work in railway stations and level crossing gates, reduction in wagons, reduction in expenditure on labour employed on patrolling curtailment of train services (but here again we come across opposition), closing down certain stations (opposition here again) rationalisation in the use of wagons for carrying coal etc.

One important recommendation which the Committee has made is the use of diesel rail cars. This recommendation we have taken up, and have placed an order for 20 narrow gauge rail cars. These will reduce the expenditure."

1.25. The Committee were informed that the Capital-at-charge of uneconomic lines was about Rs. 42 crores. The annual loss on

these lines was about Rs. 6 crores. The Committee were also informed that the implementation of the recommendations of the Uneconomic Branch Lines Committee as a whole would involve additional investment of Rs. 240 crores.

1.26. The Committee enquired whether the additional investment of Rs. 240 crores envisaged in the report of the Uneconomic Branch Lines Committee would make these lines economical or there will be loss to the Railways even after this huge investment. The Financial Commissioner Railways stated: "We cannot be certain that if we make Rs. 240 crores investment, the position will change for better. Naturally the Government could not accept this proposition as it is, but they have decided to conduct a traffic survey on 10 lines. The investment can be made only after receiving the traffic survey reports and if the expenditure is found justified." He further added: "In fact we have sanctioned surveys on 10 of the most promising lines for conversion into metre gauge/broad gauge. We have taken traffic survey and unless the survey shows that we will get a return of 6.75 per cent on the total investment we will not go in for any new expenditure. That is the standing rule. Our own feeling is that many of these lines will not satisfy the criterian. The point is that most of the places are served very well by roads and the Railways can save the money and it will be good for the country also if recurring losses are avoided by closing these lines. In fact we wrote to the State Governments in 1967 but all the State Governments have refused to permit us to close the lines."

1.27. The Committee desired to know whether under the present circumstances it was not possible to improve the operation of these uneconomic lines and whether any efforts had been made in that direction. The Chairman, Railway Board stated: "Improvement of operation means addition of steam engines, wagons and the carriages and the rails will need to be replaced. If you keep narrow gauge, the movement will be marginal which will not be competitive with the road services. So it is very doubtful that as it is much improvement can be done with these old assets because if we want improvement and speed we have to keep better track and better locomotion. That means we have got to make dieselisation. So the proposal that is made by this Committee is being examined because these proposals roughly mean conversion of about 1600 kilometers of these lines into broad gauge and extension of the 15 existing lines by 488 kilometers. All these mean money. So whether it is conversion-*cum*-extension that is going to bring in additional traffic to justify additional investment, that has got to be examined and we are doing that, Sir".

1.28. The Committee drew attention to para 45 of the Audit Report (Railways), 1970 which states that the restoration of two dismantled lines on the N.E. Railway at a cost of Rs. 59.18 lakhs was sanctioned by the Ministry of Railway during 1968-69. Explaining the circumstances leading to the restoration of these two lines, the Chairman, Railway Board stated: "I thought that this was for some other purpose than the economic consideration. I think it was because of the Kosi region, the people have suffered quite a lot and for some reasons like that. I do not think there is any other reason because these lines are built—I think in the last century."

1.29. In a further note on this point, the Railway Board stated:

"Towards the end of the last century and in the beginning of the 20th century, the then B. & N.W. Railway undertook the construction of the following rail links:

(i) Bhaptiahi-Kanwaghat *via* Partapganj.

(ii) Partapganj to Bhimnagar; and

(iii) Supaul to Nirmal *via* Thurbhita and Bhaptiahi.

The construction of these sections was completed before 1910. The Nirmali-Bhaptiahi section was opened to traffic as early as 15.11.1887. The Simri Bakhtiyarpur-Supaul-Bhaptiahi line comprising of the Supaul-Thurbhita-Bhaptiahi section was completed and opened to traffic on 1-3-1907.

It will thus be seen that these sections were constructed during the period 1887 and 1970.

The old records relating to the original cost of construction of these lines are not available at present.

These lines had to be gradually abandoned between 1911 and 1938 due to the devastation caused by the ravages of the Kosi river and other neighbouring streams which were constantly shifting their courses in the area traversed by

them. The last link between Supaul and Bhaptiahi was ultimately closed down on 15-6-1938. All these sections were closed down in the following order:

(1) Partapganj-Bhimanagar (19·2 Kms.)	Abandoned in 1911 immediately after completion even before the line was opened to traffic.
(2) Bhaptiahi-Partapganj Kanwaghat (38·4 Kms).	Abandoned in 1926.
(3) Bhaptiahi-Nirmali (16 Kms.) .	Do.
(4) Supaul-Bhaptiahi (27·2 Kms.) .	Abandoned in 1938.

1.30. The Committee pointed out that as stated in the Audit para these lines were expected to be unremunerative even after a period of 11 years from the date of opening. Asked what were the considerations on which the restoration of the lines was sanctioned, the Railway Board have stated:

> "The two unremunerative branch lines [Supaul to Thurbhita and Thurbhita to Bhaptiahi (Saraigarh)] were sanctioned in the public interest on overall development considerations for restoring a facility to the people of the region which they had been enjoying in the past and which had to be denied to them for a long period due to the ravages of nature and also taking into account the development of the region particularly in the agricultural field. It may also be added that extensive flood protection works have been completed in the area and now there appears to be practically no danger to the restored sections from the onslaughts of the Kosi river."

1.31. The Committee desired to know at what level the decision for restoration of these lines was taken and whether the Cabinet or the Finance Ministry examined the question of restoration. In a note the Railway Board have stated:

> "These decisions were taken at the highest level of the Railway Ministry i.e. by the then Ministers for Railways. Normally for sanction to Railway Projects the Cabinet or the Finance Ministry are not approached. Hence in these cases also they did not examine the question of their restoration. However, in the former case, as is the usual

practice in regard to new line projects the Planning Commission were approached for giving their approval, but they advised that as the cost involved was small (Rs. 21.73 lakhs), the Railway Board could take a decision, by themselves."

1.32. The Committee note that as a matter of policy there would be no closing of any of the existing unremunerative branch lines. The High Power Committee which went into the question of improving the working of such branch lines, so as to make them economically viable made certain recommendations which inter alia covered conversions of gauges and extension of lines. These would cost about Rs. 240 crores. The Committee were informed that the justification for additional investments on conversion-cum-extension had to be examined. The Committee would like the results of the examination to be intimated to them.

1.33. The Committee refrain from making any observation on the continuation of and the losses incurred by the unremunerative Branch lines as the Railway Convention Committee, which is likely to be constituted shortly, may like to go into this question in detail.

1.34. The Committee, however, note with concern that two of the unremunerative branch lines which were already dismantled were restored at the cost of Rs. 59.18 lakhs.

Receipts

Audit Paragraph

1.35. The increase in gross receipts occurred mainly under goods earning (Rs. 17.79 crores) partly offset by shortfall in the passenger earnings (Rs. 12.90 crores) as shown below:—

(in crores of rupees)

Particulars	Budget	Actuals	Variation
(1) Goods earnings	545·00	562·79	(+)17·79
(2) Passenger earnings	278·00	265·10	(—)12·90
(3) Other earnings (including suspense and miscellaneous receipts.)	69·69	71·18	(+) 1.49
TOTAL RECEIPTS	892·69	899·07	(+) 6.38

1.36. The Budget estimates of goods earnings took into account an increase of Rs. 21.00 crores anticipated to accrue from the increase of 6 to 7 million tonnes in the originating revenue-earning traffic over 1967-68 and about Rs. 15.00 crores due to an increase of 3 per cent in the Supplementary charge on all goods excluding postal, military

and railway materials and stores other than coal). The total originating revenue-earning traffic actually carried during the year was 170.84 million tonnes as against 162.38 million tonnes carried during the previous year. The actual goods earnings exceeded the Budget by Rs. 17.79 crores and was more than that of the previous year by Rs. 60.00 crores of which Rs. 21.00 crores was anticipated to accrue from the additional traffic.

1.37. The estimate of passenger earnings assumed an increase in passenger traffic of 3.5 per cent, over the last year. In addition, the increase in fares of air-conditioned classes, revision in the charges for sleeping berths in the Second and Third classes as also the temporary surcharge on passenger fares was expected to bring an additional revenue of Rs. 10.52 crores. The actual passenger earnings, however, fell short of the Budget by Rs. 12.90 crores mainly on account of a check in the growth of passenger traffic which was even less than that of the previous year by 2.0 per cent against an increase of 3.5 per cent anticipated in the Budget. This was the first time in the recent years when the originating passenger traffic carried during the year showed a decline over that of the previous year.

[Paragraph No. 2—Audit Report (Railways), 1970.]

1.38. Referring to the increase in the goods earnings, which according to Audit para exceeded the Budget by Rs. 17.79 crores, the Financial Commissioner, Railways explained that "It is due to the increased loads, particularly noticeable in the case of coal, iron ore, cement, finished products etc. All these accounted for about Rs. 16 crores."

1.39. Asked whether this increase in the load could not be anticipated, the Financial Commissioner replied that it varied from year to year and it will be very difficult to estimate it.

1.40. The table below shows the average load of a tonne of goods for selected commodity groups since 1960-61:

	1960-61	1965-66	1967-68	1968-69
I. (i) Public coal :				
(a) Coal for steel plants . .	281	302	334	322
(b) Coal for washeries . . .	**	21	18	20
(c) Coal for other users . .	803	764	779	777
(d) Total Public coal . .	664	571	589	575
(ii) Railway coal . . .	698	766	845	859
II. Raw materials for steel plants .	189	192	168	183

		1960-61	1965-66	1967-68	1968-69
III.	Finished products from sheet steel plants	874	821	958	932
IV.	Cement	372	456	484	527
V.	Mineral oils	544	598	515	576
VI.	Foodgrains	760	808	853	849
VII.	Other revenue earning commodities	628	715	728	748
VIII.	Railway stores and material including ballast	104	116	119	112
IX.	All goods	561	576	605	613

It has been stated in 'A Review of the Performance of the Indian Government Railways, 1970' that "During 1968-69, the average lead of all commodity groups increased with the exception of public coal, foodgrains, finished products from steel plants and railway stores and materials The variations in the lead of these groups in 1968-69 compared with the previous year are only minor. The increase in the average lead of cement and mineral oils was particularly marked."

1.41. The Committee enquired whether it was due to faulty assessment that the variations in the lead could not be correctly anticipated. The Chairman, Railway Board replied, "No, Sir. The average lead goes on increasing and decreasing due to the quantum and reduction in the short haul traffic.....unless some indication comes in over the period, we cannot make any estimate because estimation is always based on probabilities....It might materialise; it might not materialise."

1.42. The Committee desired to know the working of the machinery employed for the collection of statistics regarding traffic anticipations. In this connection, the Railway Board have furnished the following note:

"For making assessment of traffic earnings at Railways' level, the general guidelines have been provided in para 527 of the General Code which is reproduced below:

'Goods earning—in preparing the estimate of earnings from goods traffic, the railway administrations should first

ascertain the commodities which, from past experience, can be said to yield the bulk of the Railway's revenue and the estimate should be based on the ton miles to be carried of such commodities and the average rate per ton mile for the carriage of each commodity. The earnings from the rest of the commodities should be assessed in a lump sum, based on the trend of events in the immediate past, the experience of past years and, so far as it is possible to ascertain, the influence of changing conditions in the future.'

The anticipation at the Railway's level are made by F.A. & C.A.Os in consultation with the Chief Commercial Superintendents who now have a special Sales & Marketing Organisation to assist them for making such an estimation.

After these estimates have been scrutinised, an independent assessment of the estimates of originating revenue earning goods traffic in identified streams of traffic is made by the Planning, Traffic and Statistical Directorates of the Railway Board in consultation with the Planning Commission and the various Economic Ministries etc., offering such traffic. The physical targets of originating tonnage thus decided on are translated into financial terms by applying the average rate of earning for different commodities and the effect of adjustment in the rates and fares proposed in the Railway Budget.

Until recently, this average rate of earning adopted was based on the figures relating to the last completed year. To make the anticipations more realistic, particularly in regard to the variations in lead, rate and mix of the traffic, the latest statistical information for the first nine or ten months of the year is now kept in view for drawing up these estimates in the Board's office.

A monthly review of the budgeted receipts with actual realisations is carried out currently both at the Railway's level and at the Railway Board's level. Modifications to the earnings estimates are made as found necessary at the Revised Estimate stage each year while presenting the Budget to the Parliament".

1.43. The Committee note that actual goods earnings exceeded the budget by Rs. 17.79 crores. The increase is attributed to increased

leads not anticipated at the time of framing the budget. That this could not be estimated accurately does not speak well of the present system of estimation of traffic. The Committee desire that the Ministry of Railways should look into this lacuna and see how the estimation of lead could be improved to have a realistic assessment of anticipated goods earnings in future.

1.44. The Budget estimates forecast a further increase of about Rs. 15 crores as accruing from a 3 per cent increase in the supplementary charge on all goods traffic (excluding postal, military and railway material other than coal) imposed with effect from 1.4.1968. The Committee desired to know how much of the additional revenue actually accrued from the increase of 3 per cent in the supplementary charge. In a note on the subject, the Railway Board have stated:

> "The existing method of classification and accountal of earnings does not provide for segregation in records and documents of additional earnings due to change in rates and fares or levy of Supplementary charges. While framing the budget for the year 1968-69, it was arithmetically assessed that a levy of 3 per cent Supplementary charge on all goods traffic (excluding postal, miltary and railway materials other than coal) would yield an additional revenue of about Rs. 15 crores.
>
> The additional goods earnings on this account, calculated on the same basis as was adopted for the Budget Estimates, would amount to about Rs. 16 crores."

1.45. The Committee desired to know whether the frequent increases in the freight rates had affected the goods traffic. A representative of the Railway Board stated: "Regarding these freight rates, we have been rationalising the freight rates from time to time. In addition, to this, we have decentralised the rate revising powers to the various railways and a large number of station to station rates are quoted much below the tariff rates, so that wherever acute competition is felt in any area the Railways do reduce the rates and these keep the effect of the higher tariff rates down to the minimum so that they do not effect the traffic.

As far as the higher rated traffic is concerned, we have been taking special care. As I said, we have made several attempts to capture as much high rated traffic as possible. I am glad to inform the Committee that goods with classification 70 and above have shown increase—particularly in the year 1969-70—as much as 8.8

per cent in tonnage and in freight earnings 6 per cent increase. Even in the current year, for the first five months our increase in tonnage has been 7.8 per cent Actually we are taking care to see that the increase in rates do not as far as possible affect the high-rated commodities."

1.46. Table VII at page 21 of 'A Review of the Performance of Indian Railways 1970' gives the following information regarding revenue earning traffic from 1960-61 to 1968-69:

	Total revenue earning commodities		Low rated commodities*			Other commodities		
	(Million tonnes)	Index	(Million tonnes)	Index	Year to year variation (per cent)	(Million tonnes)	Index	Year to Year variation (per cent)
1960-61	119·8	100·0	78·8	100·0	..	41·0	100·0	..
1961-62	125·6	104·8	84·7	107·5	+7·47	40·9	99·9	—0·11
1962-63	139·4	116·4	95·1	120·7	+12·3	44·3	108·0	+8·16
1963-64	147·6	123·2	100·8	127·9	+5·97	46·8	114·1	+5·60
1964-65	148·8	124·2	100·2	127·2	—0·59	48·6	118·5	+3·90
1965-66	162·0	135·2	111·9	142·0	+11·7	50·1	122·2	+3·09
1966-67	164·0	136·9	115·9	147·1	+3·6	48·1	117·3	—3·00
1967-68	162·4	135·6	117·2	148·7	+1·1	45·2	110·2	—6·03
1968-69	170·8	142·6	124·3	157·7	+6·1	46·5	113·4	+2·88

*Coal, Ores, marble and stones, cement, foodgrains, fertilisers, fodder and salt.

1.47. From the above it is seen that in 1968-69 Railways carried 170.88 million tonnes of originating revenue earning traffic. As compared to 1967-68 this figure indicates and increase of 8.4 million tonnes of originating traffic during 1968-69. However, out of these additional 8.4 million tonnes carried in 1968-69, the low rated commodites such as coal, ores, marble and stones, cement, foodgrains, fertilisers etc. accounted for 7.1 million tonnes while the 'other commodities' registered an increase of only 1.3 million tonnes over the figures for 1967-68.

1.48. Asked whether the percentage of high-rated commodities in total movement have come down and if so, the reasons therefor, a representative of the Railway Board stated during evidence that "other commodities" do not necessarily mean high-rated commodities. As regards the high-rated commodities he added: "Definitely the percentage to total traffic has come down and it will further come down year after year as goods in bulk like ore and coal go up. In fact, the percentage of higher rated commodities (70 and above) is only 3 to 4 per cent of total tonnage.....The main reason is the advantages the roads have over us and we are doing our very best to improve our services. Actually our pricing also when we take the total cost to the despatcher the Railway freight plus the other incidental—works out to be higher than the road. That is the main difficulty we are facing. But this situation is inherent. We cannot get over. We cannot reduce very much. If you reduce the higher rate heavily the balance of our whole freight structure will be upset And, therefore what we are trying to do is to improve our service and take steps and at least to see that the total volume of our higher rated commodities does not fall."

1.49. The Committee called for statistics regarding the total volume of high rated commodities moved year-wise for the period 1960-61 to 1968-69. The statement furnished by the Railway Board is given as Appendix I. It has been explained by the Railway Board that:

> "No rigid line of demarcation has been laid down for purposes of classifying commodities as high rated. However, for the purposes of marketing and sales drive, commodities charged at class rate 70 and above in wagon loads are treated as highrated and have been selected for special watch by the Railways. Further, as a measure of attracting traffic to rail and to ensure free and uninterrupted movement of traffic, commodities charged at classes 70 and above are normally exempted from the purview of operational restrictions imposed by the Railways."

1.50. The total tonnes originating (wagon loads and smalls) of commodities charge at class 70 and above for wagon loads were as under:—

Year	Tonne
1965-65	9,446
1966-67	10,162
1967-68	9,253
1968-69	7,510
1969-70	8,194

It is seen from the above statement that after 1966-67, the total originating tonnage of high rated commodities has been continuously declining even though there was a slight receovery in 1969-70.

1.51. The Committee pointed out that apparently things were moving in a vicious circle. In order to meet the loss or cut down the loss the freight rates were increased. As as result of the increase in freight rates the traffic goes down and then again the freight rates are increased. The Chairman, Railway Board explained as under:

> "May I be permitted to say that increase of freight rates which we are doing recently is not a sort of *ad valorem* rise everywhere. We have been trying to bring it to a more cost-oriented rationale. You know our rates have got a taper *i.e.* for short distance the rates per kilo-metre are higher, and as you go farther and farther, it is reduced. So in rationalising our freight structure we are taking all precaution to see that our rates remain competitive with the road. But for short distance, we will never be able to do so. Out of the three components, these two which predominate in the total cost are the cost from the godown to the rail plus that from the rail to the receiver's godown. In short distance, we cannot compensate these. But for medium and other distances we have taken particular care to see that our freight structure takes into account all these factors. And even when you go in for further increase in future, it wil be in the forefront. As a matter of fact, we are bringing this to a more and more rationale. But as you know, we have got to follow certain discipline in the Railways for overall social interest. Therefore, much that we would like to bring more rationalisation we are not permitted to do because that obstructs the other cost structure. So, we have got that little handicap or restraint to us."

1.52. He further added: "Sir, In the Railways' transport policy today, our low-rated commodity content will increase by huge proportions, and we will not be able to keep the high rated percentage same all over. What our effort should be is to see that we do not lose in the percentage of railway traffic out of the total production. That is, if we are taking 50 per cent of the production of a particular commodity today, we should see that we do not fall in our share of the transport of this high-rated traffic generation. That is, we should be able to keep our share in tact. And in fact, we should improve. That is our effort, and we are making that effort. But we would not be able to keep the percentage because the country's

production of ore is going up, and nobody will take. And coal will not go up. But ore is certainly going up. And there is salt industry and also foodgrains. And Broad Gauge is only up to a certain distance. In Metre-gauge, it does not bear our cost even for one kilometre. It increases in foodgrains. So, we would not be able to keep the percentage. But we will not lose our share."

1.53. The Committee asked for a detailed note showing how far the various measures taken by the Railways in the recent years to attract more traffic have actually increased the traffic and the comparative position of the traffic moved before and after the introduction of each measure. The note furnished by the Railway Board is reproduced as Appendix II.

1.54. It has been stated by the Railway Board that "It is not possible to specifically assess the increase in traffic brought about by each of the abovementioned measures. However, they have contributed towards increasing the tonnage of revenue earning traffic excluding selected low rated commodities (coal, ores, marble and stones, cement, foodgrains, fertilisers, fodder and salt) as follows:

(Figures in millions)

Year	Total tonnage	Total of selected low-rated commodities.	Tonnage of other commodities
1967-68	162·4	117·2	45·2
1968-69	170·8	124·3	45·5
1969-70	173·8	126·1	47·7

1.55. The Committee enquired whether loss in transit was responsible for a fall in rail traffic of revenue earning commodities like cotton textiles. A representative of the Railway Board stated in evidence: "We have looked into this question also. In the case of textiles, it is one half percent of the total volume despatched for which we are required to pay claims. If a trader despatches 100 tonnes, the loss of which we were required to pay claim is .5 tonnes. As far as sugar is concerned, it is one-third of one per cent of the total volume despatched. This is, of course, alarming to the railways. We have to take all precautions but at the same time the percentage is not of such a magnitude as to influence the decision of the trader about the mode of transport either by road or by rail."

1.56. Enumerating the steps taken to improve the position, the representative of the Board stated: "We are very much concerned for this. We have decided to streamline our railway protection force

and we are taking a lage number of steps. The first and foremost is that we have introduced Unlawful Possession of Railway Property Act which gives greater power to the RPF to prosecute persons. whichever the railway property is found and they cannot prove their ownership.....Further we are introducing more and more armed escorts with goods train, yard patrols, dog squads etc. so that whenever there is a crime committed, our dogs are taken to the spot and they help in investigations. We have strengthened our Crime Intelligence and we work in close coordination with the Railway Police, that is, the Government Railway Police and also the Civil Police.....Then another thing we have done recently is to introduce a Pilot Scheme in which the various streams of traffic which are particularly vulnerable have been identified. Apart from that, the point to point traffic where the greatest damage occurs has been identified.....Then, another thing we have recently started is the security operation in important Marshalling yards....Besides the Civil Police and the Government Police, we have also put in a Special Security Officer. We have instituted revolving signal lights. We are making this campaign as comprehensive as possible." He added: "The greatest single factor which has unfortunately hampered our efforts is that over 3000 men belonging to the Railway Protection Force are deployed on duties which legitimately belong to State Police. We have our staff strength of 56,000 men and we spend approximately Rs. 12 crores on this Organisation. Their legitimate duties are to guard our running trains and property from pilferage and theft. Unfortunately, the law and order position in certain areas have worsened and althought it is not the responsibility of the Railways, the RPF staff have to be detailed to help the Civil Police in maintenance of law and order. It is particularly so in the Eastern part of India where disturbances in the form of attacks on staff, attacks on Railway property and attacks on wagons have become very common. We already have 2 battalions of RPF exclusively for this purpose on the Eastern Railway. Similarly on the N. F. Railway, 4 Battalions are engaged in patrolling the track and searching pasengers' luggage to guard against hostile Naga activities."

1.57. The Committee were informed that 60 per cent of the total losses in transit were on account of pilferage and theft and the other 40 per cent was due to damage in handling like losses by breakage of consignments either due to defective packing or rough handling and handling damages in sheds and in transit.

Compensation claims

1.58. Details of the percentage of compensation paid to the total freight earnings of the Railways during the years 1966-67 to 1968-69

and the percentage of claims pertaining to cotton piece goods including textiles and suggar and jaggery are given in the table below:

Year	Percentage of total claims paid to fright earnings.	Cotton piece goods including textile			*Sugar and Jaggery		
		Compensation paid.	Freight earnings	Percentage of compensation paid to freight earnings	Compensation paid	Freight earnings	Percentage of compensation paid to freight earning g
		(Rs. in thousands)			(Rs. in thousands)		
1966-67	1·05	48,02	4,08,00	11·8%	47,16	13,72,52	3·4%
1967-68	1·27	55,47	4,44,89	12·5%	75,91	8,88,44	8·5%
1968-69	1·47	65,77	4,24,34	15·5%	1,11,47	8,71,58	12·8%

*Amount of compensation paid for sugar only is not separately maintained

1.59. It is seen from the table above that although the overall percentage of total claims paid by Railways to total freight earnings is less than 2 per cent, the percentage of compensation paid on cotton piece goods as compared to total freight earnings thereon comes to 15.5 per cent in 1968-69. Similarly in the case of sugar and jaggery the percentage of compensation paid to the total freight earnings on this account works out to 12.8 per cent in 1968-69.

1.60. The Committee enquired how the percentage of compensation paid by the Indian Railways compared with the Railways in other countries. The Railway Board have furnished the following note:

> "The percentage of compensation paid to earnings on Japanese National Railways, American Rail-Roads, Canadian National Railways, Canadian Pecific Railway, German Federal Railways compare with the position on Indian Railways as under:

Name of Railways	Percentage of compensation paid to earnings
Japanese National Railways	0·06
Americaln Rail Roads (1968)	1·76
Canadian National Railways (1966)	0·94
Candaian Pacific Railway (1966)	0·88
German Federal Railways (1968)	0·26
Indian Railways (1966-67)	1·05
(1967-68)	1·27
(1968-69)	1·47

It is seen from the above table that except in the case of American Rail Roads, percentage of compenation paid to total earnings is much more in Indian Railways as compared to foreign Railways.

Steps taken to attract traffic

161. As regards the measures taken to attract more traffic to Railways, a representative of the Railway Board stated during evidence, "We have very little control over road traffic and our competitive position is very unfavourable compared with other modes of transport. It is mainly in the categories of Class 60 or 70 and above that we have particularly to nurse the traffic to divert it from the road. As far as the Southern Railway is concerned, we have always been in a very unfavourable position because the area is well developed in the matter of roads and also, there has been a long tradition of a well-established road transport industry. Almost every important business centre is connected more favourably by road than by rail. For instance, the distance from Bangalore to Bombay is less by road than by rail. Similarly, the distance from Madras to Secunderabad and Madras to Bangalore is less by road than by rail. So all these features put us in a rather disadvantageous position as far as competitiveness is concerned. So, what we are trying to do is to nurse the traffic and get a bit more of the high rated traffic by giving better service." He further added: "Listing the innovations we have made, first of all we have introduced the Container Service. The Container Service is an intermodel form of transport and gives a total package transport in the form of a door to door service to our customers. The Container is brought to the premises of the consignor. His merchandise is loaded into the container, brought to the rail head, taken by rail to the destination, and then the whole container is transferred to the truck and delivered finally at the consignee's premises. This container concept has caught on very well all over the country including the

South. To give an idea of our progress in respect of container service, we introduced this container service on the Southern Railway in 1969. Our total receipts from these containers was 8.5 lacks rupees whereas in 1970-71 for a period of 7 months, our receipt has gone up to Rs. 7.45 lacks. Our intention is to expand the container service. This depends on the availability of containers and other matching equipment."

"Another Service we are giving is the freight forwarder scheme. This scheme involves door to door contacts. Normally we are placed at a disadvantageous position because the consignor has to bring his goods to Railway premises, wait and waste time in booking and so on. The main idea of the scheme of Freight Forwarder is that we offer a total package transport to serve the consignees *i.e.* the Freight Forwarder collects the 'smalls' traffic all over the town and offers it in bulk wagon loads to us. The transit of the goods is specially watched and the distribution of the goods is done to the consignee's door. Last year we started this on a modest scale. This year we have already booked about 47 wagons and we hope that this form of transport which is widely prevalent in the United States will increase with great advantages to us. Railways will not deal with uneconomic 'smalls' traffic which will become the responsibility of the Freight Forwarder."

"Then we have introduced a mobile collecting service. We have arranged for booking clerks who go to the consignors and book the goods and issue invoices on the spot. They need not come to the station and bring the goods to the station. We have introduced this in the Southern Railway. Till now we did not hope to get any share of the tea traffic from Ootacommand in the Nilgiris to Cochin Port. The main difficulty was that the traffic had to move over the Narrow Gauge, get transhiped into broad gauge at Mettupalayam and go by goods train to its destination all of which took considerable time We have got over the difficulty by bringing the tea by road to the Broad gauge rail head, loading into a special wagon and making very special arrangements of quick transit to its destination. The results are encouraging."

"So with all this, I am happy to report that in 1969-70 rail borne traffic has made very remarkable improvement *i.e.* Railway's share has gone up from 85 per cent to 90 per cent. We have also considerably increased jute traffic by rail. In 1968-69 we had a bad year on account of crop being poor but in 1969-70 jute traffic is picking up well. As far as sugar is concerned, here again we have made special endeavours to attract the traffic."

1.62. The following information has been abstracted from

Table VIII at pp. 22-24 of 'A Review of the performance of the Indian Government Railway 1970' in regard to production of sugar, tea and cotton manufactures and the share of rail movement:

(In thousands of tonnes)

Commodities	Production (Percentage of rail movement)					
	1950-51	1955-56	1960-61	1965-66	1967-68	1968-69
Sugar	1,134 (82·3%)	1,892 (71·7%)	3,029 (49·1%)	3,515 (43·9%)	2,266 (46·0%)	3,555 (21·8%)
Tea	279 (95·0%)	208 (85·1%)	321 (77·9%)	366 (55·5%)	300 (67·1%)	337 (77·2%)
Cotton manufactures	583 (81·0%)	900 (61·9%)	993 (38·3%)	1,171 (26·3%)	1,143 (28·7%)	1,225 (22·0%)

1.63. Referring to the above statistics, the Committee pointed out that the percentage of rail movement of sugar has consistently gone down despite an increase in its production over a number of years. The Chairman, Railway Board explained that formerly all the sugar mills were concentrated in U.P. area and sugar was to move all over India but gradually sugar industry developed in South and Maharashtra and as such movement became less and less.

1.64. As regards the rapid fall in rail movement of sugar in 1968-69, a representative of the Railway Board stated: ".....in 1968-69 the sugar production in Northern region particularly on the North-Eastern railway portion was low as compared to 1965-66. In the year 1965-66 the sugar production by factories on the North-Eastern Railway was 10 lakh tonnes and in 1968-69 the sugar production of these factories was 7 lakh tonnes althouh the overall production of sugar in the whole country was greater in 1968-69 than in 1965-66 but in the portion served by the North Eastern Railway the production of sugar was less. The sugarcane production on the North Eastern Railway being less the sugar production of the factories located in the North Eastern Railway area was also less. It is the sugar which is produced on the North Eastern Railway which predominantly uses Railway because the road development in that area is not of the order which would induce diversion of traffic to the road.

Secondly, the partial de-control of sugar came in October, 1967 and with that partial decontrol 40 per cent of the sugar production was for free sale and that sugar was being channelled through private trade and the private trader at that time, because the sugar

prices were fluctuating, was not prepared to invest heavily and wanted to move sugar in small lots. If he took it by truck he had to invest only for 5—6 tonnes of sugar but if he wanted to move by rail he would have to invest for 20 tonnes and that also induced a larger movement by road than by rail. These are some of the factors which specially depressed sugar movement in 1968-69. Then again the permits which were being issued for controlled sugar were in lots of 70 quintals and that was causing diversion to the road because 70 quintals could not make for a wagon load. When it came to our notice we approached the State Government and told them that this was driving the traffic away from railway and the State Governments cooperated. They changed their method and started giving permits for larger lots and the result of our effort has been that in 1969-70 we have picked up and 1970-71 is also showing still better results."

1.65. The Committee were informed that during 1969-70 Railways had moved 9,86,000 tonnes of sugar against 7,75,000 tonnes moved in 1968-69. It was pointed out that even during 1969-70 partial decontrol of sugar was there but still the railway's share was much more as compared to 1968-69. A representative of the Railway Board stated that "partial control is there. But these fluctuations in the prices of sugar are not there; at that time the prices were Rs. 3, Rs. 4, Rs. 3.50 etc. And that fluctuation is not there, and therefore, the trader is not shy in investing in a full wagon."

1.66. Asked whether in the matter of transportation of sugar, Railways were facing tough competition from road transport because of their efficient and safe service, the Chairman, Railway Board replied that there were certain inherent difficulties with which Railways suffered and "as a matter of fact we are conscious that we are losing certain high rated traffic." He further added: "This competition of rail and road today is unfair in the sense that the rail because of the quantum of transport on one organisation has got elaborate overheads whereas the roadcarrier who handles 7-tonnes units does not have to have a sort of organisation for this purpose. So, these things have got to be looked into. We have got to exert very much more than we have been exerting before."

"And we are making our efforts because we know our competition today with the road will be increasing because roads are being improved; the bridge are being built and more investment, and lorries are coming up."

Tea

1.67. In regard to tea traffic, a representative of the Railway Board stated during evidence: "As far as tea is concerned truckers have certain advantages over us because they are able to get traffic by various forms of persuasions which are not open to us. Our strategy here has been to arrange a special train called Tea Princess, the running of which is specially watched. One of the main difficulties confronting us in the transport of tea from N.F. Railway to Calcutta is that Calcutta Port has been frequently getting congested. In order to get over this difficulty we have arranged subsidiary receiving centres at Calcutta where, whenever a restriction is imposed goods are received first and then when room is available in Calcutta Port we transport by road to the Tea Depots. We also make special arrangements for ensuring goods wagons for transport of tea so that as little damage as possible is caused by the wet season during which tea principally moves."

1.68. The Committee drew attention to the figures given in the statement (Para 1.62) and enquired for the reasons for the decline in tea traffic as compared to 1950-51. The Chairman Railway Board explained:

> "You are comparing 1950-51 figures ..... I have told you before, Sir, that the development of road has been much more in the intervening period. In those days—I know about Assam and North Bengal—there is no means of road transport. Therefore, perforce the tea had to come by rail. If you see our efforts for these years—1965, 1966, 1967 and 1968 as also 1969, you will see that we have been progressvely getting back."

1.69. Asked whether, in spite of the road development, Railways could reclaim tea traffic and whether any steps had been taken, the Chairman, Railway Board stated "We can. It will need a lot of effort; a lot of salesmanship will be called for. We are seriously at it now....The two major steps are these containers and giving express goods service, sometimes with diesel locomotives between various important sectrs like Calcutta, Bombay, Madras etc."

1.70. In this context, the Financial Commissioner Railways added: "As the Financial Commissioner, Railways, I would like to stress one point. The Railways have to carry all the bulk traffic at rates which are below cost—coal, iron ore, foodgrains, etc. They are all being carried at below cost. There is a point beyond which we cannot increase these rates. The tide is against the Railways,

unless there is a proper coordination of road and rail transport with the assistance of the State Governments, who are now more interested in the development of road transport than rail transport."

Cotton manufactures

1.71. The Committee enquired about the reasons for the loss of traffic in cotton manufactures which was declining year after year as disclosed by the figures given in the Review. A representative of the Railway Board stated during evidence: "There are two sectors; one is the centralised sector and the other the decentralised sector. The decentralised sector is represented by handlooms, powerlooms and so on. The production in the last few years has increased mainly in the decentralised sector. The production of decentralised sector generally moves traditionally either by road to short distance destinations or it moves as parcels or as accompanied luggage. This movement in parcels and luggage is not reflected in the figures quoted in the review. The figures quoted in the review refer to the total production both in the centralised and decentralised sectors whereas the movement is quoted only for goods traffic. Therefore, a certain wrong impression is created by it. Now, on piece goods traffic of the cotton manufacturers, we are losing very heavily. One of the main reasons is that these piece goods move in small lot—that is, the unit of movement is small, somewhere about 30 to 35 kilgorams whereas our minimum weight for charge is 40 kilograms subject to minimum charge of Rs. 8 per consignment. And this bring a high-value commodity we are certainly at a disadvantage as far as the road is concerned and we are actually trying to go deeper into the matter to see in what way we can recoup our position. We have called for a meeting of textile manufacturers and textile industrialists to see in what way we can improve our position. The road has a certain advantage but we have not lost all hopes yet and we are trying to take more interest and keep on actively pursuing the matter and we hope to recoup the traffic that is lost. But an important point is that, as pointed out here the figures of production include both the centralised and decentralised sector while the textiles mills have had a hard time."

1.72. To a question whether it was not possible for Railways to reduce the size of unit of 40 kilograms, it stated that 40 Kgs. was the optimum size and the reduction in this size would be uneconomical.

1.73. The Committee find that the percentage of high-rated commodities to the total movement of goods traffic has come down and that it is only of the order of 3 to 4 per cent of total tonnage. Originating traffic of these commodities fell from 9253 tonnes in 1967-68 to 7510 tonnes in 1968-69. The Committee would like Government to ensure that at least the volume of high-rated commodities is not reduced further.

1.74. The Committee are concerned to find that the percentage of total compensation claims paid to the freight earnings during the year 1968-69 registered an increase over that of the previous year. The percentage during 1968-69 was 1.47 as against 0.06 of Japanese National Railways and 0.26 of German Federal Railways. The Committee were informed that 60 per cent of the total losses in transit on Indian Railways were on account of pilferage and theft and the balance was due to damage in handling. It is obvious that such huge losses have affected the growth of goods traffic. The Committee hope that all possible steps will be taken to minimise the transit losses so as to instil confidence among the consignees.

1.75. Despite various measures taken in the recent past to attract more traffic, the Committee note that there has been a steep decline in the percentage of rail movement of commodities such as sugar and cotton manufacturers to their total production. The percentage of movement of sugar fell from 82.3 per cent in 1950-51 to 46.0 per cent in 1967-68 and 21.8 per cent in 1968-69 and that of cotton manufactures from 81.0 per cent in 1950-51 to 28.7 per cent in 1967-68 and to 22.0 per cent in 1968-69. These figures speak for themselves. The Committee would therefore like the Railway Board to examine as to what further steps should be taken to arrest this trend and to maintain the Railway's share of movement in the total production of such commodities at a reasonable level.

Passenger Earnings

1.76. The Committee enquired about the reasons for a decrease of 2 per cent. in the passenger traffic against the anticipated increase of 3.5 per cent. The Chairman, Railway Board explained during evidence: "That has not been happening every year. This has happened in the year 1968-69. That was an exceptional year. Actually for the year 1969-70 we have got almost double. In 1966-67, it was 5.8 per cent., in 1967-68 it was 2.9 per cent., in 1968-69 it was 2 per cent. The main reason for decrease in 1968-69 is that in the first instance it was a very abnormal year. In the first place, in this year around July or so we had strike which completely paralyed both South Central and Southern Railways for a period of nearly 2

weeks. Then came the most unprecedented flood on the East Coast side where the entire movement was interrupted for one month. Then we had the same kind of situation in the North-East Frontier Railway on account of which there was an interruption on this line nearly for one month. Again on the Western Railway side between Bulsar and Surat there were breaches and the wholee traffic was interrupted. So the strike, famine and major breaches simultaneously occurring in one year was the principal cause for the loss in 1968-69. Another reason for this was due to economic recession that followed immediately after 1967-68. This means that people's purchasing power is poorer. But apart from these factors which are on account of natural calamity, the whole trend has been reversed and in 1969-70 we have 5.4 per cent increase and in 1970-71 *i.e.*, upto end of September we have 7.75 per cent. increase."

1.77. The Budget proposals for 1968-69 envisaged increased earnings of about Rs. 10.52 crores consequent upon increases in fares including the levy of surcharge which also had the effect of raising the minimum fare from 15 to 20 p. The actual earnings for 1968-69 fell short of the Budget Estimates by Rs. 12.90 crores. The Committee desired to know whether increase in fares could be one of the reasons for the decrease in the passenger traffic. The Chairman, Railway Board stated that the increase in traffic in 1970-71 indicated that fares were not responsible for the unique fall in 1968-69. The decrease in passenger traffic during 1968-69 was more reasonably to be attributed to natural calamities.

1.78. The Committee pointed out that in the Budget speech for 1969-70 it had been explained that the reduction in the passenger earnings during 1968-69 had occurred *inter alia* due to a shift of short distance traffic from rail to road. Asked how far this was correct, a representative of the Ministry replied: "When we have interruption—in the case of breaches—it is the short-distance traffic which really suffers because the long distance traffic is continued by diversion. But in the case of short distance traffic, the movement is stopped. Therefore, the effect will be felt more in the case of the short-distance traffic."

1.79. The Committee desired to know what was Railway's policy in regard to short distance traffic. The witness stated in reply: "If the train is already running there is no point in discouraging passengers travelling by it. My endeavour is to try to develop traffic in those areas where the capacity is under-utilised even though the traffic so developed is short distance traffic, as in the long run it will not increase my expenses. But where the Railway

capacity and the rolling stock is limited, *e.g.*, on the main trunk routes we have to take care that the capacity is not taken by these short distance trains to the detriment of the long distance through trains. When this happens, sooner or later we have to make an investment to accommodate the long distance through traffic which has been affected by the short distance through traffic on the trunk routes. It is under these conditions that the short distance traffic is uneconomic and we want to discourage it. But on the whole, if we have a train already running we do not mind running it through it is not covering fully our cost."

He also added that they were not unhappy about the diversion of short-distance traffic as "it reduced pressure at the booking windows and also helped in removing congestion."

1.80. Asked whether in order to justify increase in the Railway fare the policy was to reduce the short distance trains. To this the witness replied : "No, Sir. It is not our considered policy to reduce short-distance trains but as I said, on over-crowded congested routes, maintenance of short-distance traffic means more and more investments just to accommodate the short-distance trains. Here definitely we are against the short-distance traffic. So far, we have not taken active steps to deliberately reduce the traffic and the short-distance traffic is maintained, wherever they are already there."

1.81. To another question whether Railways proposed to take any steps to reduce short distance trains, the Chairman, Railway Board replied : "Sir, there is nothing specially comtemplated at present. But I am putting to the Committee the situation which we will be meeting very soon. Now as you see, all our terminals like Calcutta, Bombay, Madras and Delhi are almost congested today. The demand for long distance traffic will go on increasing. Now in that context, at a point of time we will have to make up our mind whether we can go on increasing these short-distance passengers traffic which can be off-loaded to the road services and utilise the released capacity by the long distance trains or we go in for a huge capital expenditure for developing terminals. This thing is also allied with the question of suburban traffic. Now as you know, Sir, suburban traffic development is required in all these metropolitan cities. If the Railways are to continue the suburban traffic plus the long distance traffic, these terminals with huge expenses are again called for. As you know, our suburban traffic brings a loss of about Rs. 10.00 crores and the passenger service brings in loss of Rs. 38.00 crores. Therefore, if you put in more and more capital, these losses are going to be increased. So at a point of time, we will have to take decision as to whether we should continue to

take on the burden of short-distance traffic and passenger traffic or of-load to the road and make the Railways keep a hold on this long distance in place of short-distance traffic. But I do not think that there is any policy now."

1.82. The Committee desired to know whether it was not possible to improve the passenger trains which moved so slowly. The Chairman Railway Board, stated : "Sir, in the short-distance there is a difficulty so long as we have to continue the same engine. Acceleration and dieselisation take 3 to 4 minutes time but when the maximum speed of these passenger trains is 40 km per hour, it will not be possible to introduce this in the meter gauge passenger traffic. By the time the engine reaches the speed of 40 km., it has to stop and again the engine has to start decelerating. Therefore I am afraid we will have to tolerate the slow speed on all passenger trains but we would be able to give a better show in the long distance trains. These passenger trains are also handling parcel traffic and as a result lot of time is taken in loading and unloading. It will be improved when we get double lines. But where double lines are already available, there will be improvement. However, we do not get so much improvement unless we introduce diesel rail cars which is a long drawn affair."

1.83. The Committee note that the actual passenger earnings fell short of the Budget by Rs. 12.90 crores mainly on account of a check in the growth of passenger traffic which was even less than that of the previous year by 2.0 per cent against an increase of 3.5 per cent anticipated in the Budget. The Committee are concerned to find that this was the first time in the recent years when the originating passenger traffic carried during the year showed a decline over that of the previous year. They were, however, informed that subsequently traffic had picked up and that the abnormality in the year 1968-69 was attributable to natural calamities. The Committee hope that the growth of passenger traffic will be maintained in future by ensuring better service and punctuality in running trains.

Revenue Expenditure

Audit Paragraph

1.84. The break-up of the net increase of Rs. 16.57 crores in the estimated revenue expenditure is given below:

(In crores of rupees)

Particulars	Budget	Actuals	Variation
1	2	3	4
A—Working Expenses			
(i) Staff-Administration including Staff Welfare and Operating . . .	222.88	227.38 (+)	4.50

	1	2	3
(ii)	Repairs and Maintenance . .	200·68	209·04 (+) 8·36
(iii)	Fuel	131·69	139·13 (+) 7·44
(iv)	Miscellaneous Expenses including operation other than staff and fuel, payments to worked lines and suspense.	58·93	61·48 (+) 2·55
(v)	Appropriation to Depreciation Reserve Fund	100·00	95·00 (—) 5·00
(vi)	Appropriation to Pension Fund .	9·93	9·90 (—) 0·03
B—	Miscellaneous Expenditure such as cost of Railway Board and its attached offices, surveys, Audit and subsidy paid to Branch line Companies .	6·58	6·66 (+) 0·08
C—Open Line Works—Revenue . .		9·00	7·67 (—) 1·33
	TOTAL REVENUE EXPENDITURE	739·69	756·26 (+) 16·57

1.85. The increase of Rs. 12.86 crores under 'Staff' and 'Repairs and Maintenance' was mainly due to:—

(a) (i) Post-budget enhancement in the rates of dearness allowance sanctioned with effect from 1st September, 1968 (Rs. 6.35 crores);

(ii) the effect of merger of part of dearness allowance with pay from 1st December, 1968 (Rs. 3.03 crores); and

(iii) the increase in the rates of mileage, overtime and running allowances to running staff and travelling allowances to other staff (Rs. 3.09 crores);

(b) More expenditure on repairs to permanent way, equipment etc. owing to damages caused by floods, cyclone, accidents etc. (Rs. 2.45 crores);

(c) additional payment of rental for Posts and Telegraphs cables and line wires including arears (Rs. 2.43 crores); and

(d) aggregate of other minor variations (Rs. 0.78 crore).

The increase were partly set off by a saving resulting from non-operation and non-filling up of certain posts and less expenditure on staff training (Rs. 5.27 crores).

1.86 The increase of Rs. 7.44 crores under 'cost of fuel' occurred mainly on account of:—

(a) heavier consumption of diesel oil including more payments of excise duty and sales tax thereon (Rs. 2.91 crores);

(b) increase in the prices of coal from 1st July, 1968 (Rs. 1.85 crores); and

(c) more expenditure on electricity for traction purposes owing to electrification of certain sections, increase in the tariff by suppliers and increased cost of generation (Rs. 1.03 crores).

1.87. While presenting the revised estimates for 1968-69 alongwith the Budget for 1969-70 it was explained that the withdrawal from the Depreciation Reserve Fund would be about Rs. 6.00 crores less than the Budget estimates of Rs. 100.00 crores and that the contribution to the Fund was also reduced to Rs. 95.00 crores from the Budget grant of Rs. 100.00 crores. While the contribution of Rs. 95 crores to the Fund was maintained, the actual withdrawal from the Fund during the year under report less Rs. 80.39 crores including Rs. 0.14 crore relating to Production Units for which separate contribution was made.

[Paragraph No. 3 of Audit Report (Railways), 1970.]

Depreciation Reserve Fund

1.88. The following information has been abstracted from Appendix XIII in the Explanatory Memorandum on the Railway Budget, 1971-72:

(In lakhs of Rupees)

Year	Appropriation to Fund from				Withdrawal from fund	Net accretion to Fund during the year	Closing Balance
	Revenue	Capital	Interest on balance	Total			
1966-67	100,00	2,01	2,60	104,61	79,69	24,92	77,76
1967-68	95,00	2,18	3,15	100,33	93,82	6,51	79,74
1968-69	95,00	2,40	3,69	101,09	80,39	20,70	98,17
1969-70	95,00	2,48	4,86	102,34	73,78	28,56	126,38

1.89. It is seen from the above that the appropriation to the D.R.F. from revenue was Rs. 95 crores during 1968-69 but the actual withdrawal from the Fund amounted to Rs. 80.39 crores only. As a result there was net accretion of Rs. 20.70 crores to the Fund during the year.

1.90. The Committee desired to know the reasons why the contribution to the D.R.F. was maintained at the level indicated in the Budget estimates although the actual drawals from the Fund were less than anticipated. The Financial Commissioner, Railways stated as under:

"Sir at the outset I would like to point out that it is not an unusual feature. Page 94 of the Explanatory Memorandum gives Depreciation Reserve Fund position from 1951-52 onwards. We find that the appropriation to the fund has exceeded the actual expenditure for number of years. In the year 1966-67 the net addition was Rs. 25 crores. Personally as a Financial Commissioner, I think it is not a bad thing because this Depreciation Reserve Fund is a reserve fund for meeting replacement cost of assets and should be available for contingencies. For Railways, where the investment is of the order of Rs. 3,200 crores we must have a sizeable depreciation fund. In 1970-71 the balance is of the order of 118 crores. It is barely sufficient for the replacement requirements of one year. Personally I feel that depreciation fund should be built up to guard against any demands at a time of emergency. So far as this year is concerned the original budget appropriation figure was 100 crores and it was brought down to 95 crores at the time of the revised estimate because we realised the expenditure would be less. Here also it was not only the expenditure which was less. We also take credit under this head for released material i.e. rails and other items which are released when the track is removed. We take back the second hand rails and give credit for their value. The credit which we had originally estimated in budget was Rs. 10.3 crores, but the actuals came to Rs. 20.95 crores. It was primarily because of the increase in steel prices. In 1968-69 the steel shortage started. So, the price for the second-hand steel went up. Hence, we got very good credit. Because of the steel shortage itself we did not get steel sleepers and track fittings which we wanted. The work could not be proceeded with to the extent anticipated.

The shortfall was mainly due to.

Rs. 10.64 crores on account of increase in credit.

Rs. 3.35 crores shortfall in carriages.

Rs. 2.57 crores shortfall in wagons; and

Rs. 2.75 crores shortfall in track renewals."

1.91. The Committee pointed out that the Railway Convention Committee, 1965 had, on the expectation that there would be a withdrawal of Rs. 650 crores from the Fund during the 5 years period recommended a contribution of Rs. 650 crores to the Fund, the annual contribution rising progressively from Rs. 100 crores in 1966-67 to Rs. 160 crores in 1970-71. According to this the annual contribution was related to the withdrawals from the Fund.

1.92. Asked about the criteria on the basis of which contribution to the Fund is determined, the Chairman, Railway Board stated: "It is on the basis of expected expenditure in future. And if you kindly see, the very point which the Chairman was referring to, the Convention Committee also accepted a higher rate of expenditure from this Fund. Unfortunately, we are not able to renew and replace to the extent necessary, because our revenue position has not been as it was anticipated. Even in the next Fourth Plan, we are building up only Rs. 5.25 crores expenditure out of the D.R.F. whereas we would have needed Rs. 650 crores. But we have not got the money. Therefore, we have decided to be satisfied with Rs. 525 crores expenditure. And we propose to keep some of these overaged stock into service.

Our cost of replacement is going up from year to year. And a prudent man would always like to build up his fund for renewal a little earlier than it is called for. We got Rs. 20 crores this year. Actually, the renewals will have to be done within the Plan period. We are planning only a contribution to the extent of our expenditure. We are not having anything more. As a matter of fact, by taking shelter under the Convention Committee recommendation, we could have brought in a bigger deficit. We have not done so."

1.93. The Committee pointed out that there appeared to be no consistency and in view of the flexible nature of the recommendations of the Railway Convention Committee, it was entirely for the Railways to determine the annual contribution to the Fund. The Committee desired to know how exactly this figure was determined. The Financial Commissioner Railways, stated: "I quite fully appreciate. As the Chairman, Railway Board was saying, we have many overaged locomotives, overaged coaches, tracks etc. and our objective is

to replace them as and when possible. Actually this 130 crores was based on the replacement of overaged stock and other overaged assets. It was based on that because of the financial position, we continued with whatever overaged stock, we had. Our assets are increasing at the rate of 160 to 180 crores every year. That itself would mean that on the basis of 6 per cent, we increase by 8 crores or something like that. But having gone for 95 crores in 1967-68, we thought that with 130 crores more of assets and more overaged stock, we should not reduce this figure below 95. In fact, the Planning Commission, with whom we discussed, also accepted that the contribution for the five years should be 95, 100, 105, 110 and 115 crores, thus on an average 105 crores for the Fourth Plan. This takes into account the fact that every year there is increase in assets, so there must be increased depreciation provision". He further added: "At that time we thought that our expenditure will be Rs. 95 crores and we accordingly provided our contribution. Our budget was for Rs. 95 crores also. We provided for various items. Really, if we exclude the amount of increased credit the shortfall in depreciation expenditure has been only Rs. 9 crores. As I mentioned it is Rs. 2.57 crores on account of wagons Rs. 3.25 crores on account of coaches, Rs. 2.75 crores on account of track renewals, half a crore on account of bridges etc. The revised estimate is prepared on the basis of figures which are available at the end of December or January. When we knew that there was some slight shortfall, we revised our estimates accordingly."

1.94. The Committee pointed out that if contribution to the Depreciation Resere Fund was increased without taking into account the annual drawal from the Fund, the deficit in the Budget would unnecessarily get inflated. To this the Financial Commissioner, Railways, replied:

> "That is quite true. We have to realise that but for the shortages of steel and the peculiar difficulties coming constantly as a result of that, there would not have been this large gap. Actually, Sir, if you see the particular statement which I referred to, in 1961-62 and earlier years, the expenditure from the DRF was much more than the input i.e. contribution to the fund. So much so, the fund which started at Rs. 124 crores in 1950-51 was reduced to Rs. 20 crores in 1960-61. We note the Committee's concern, and we do not want to put more than that is required. I am only submitting that this present level of only one year's contribution is the safe minimum."

1.95. The Committee note that the Railway Convention Committee, 1965 after having considered the requirements during the period

1966—71 for the purpose of replacement of locomotives rolling stock and track renewals etc. which were estimated by the Railway Board at Rs. 650 crores, recommended that "the appropriation to Depreciation Reserve Fund from Railway revenues may be increased to an average of Rs. 130 crores per year for the quinquennium 66—71 or as close thereto as possible, taking account of the financial position". The Committee therefore feel that the yearly appropriation to the Depreciation Reserve Fund should have been regulated according to the actual requirements during each year. However, during the four years from 1966-67 to 1969-70 the total appropriations to the Fund amounted to Rs. 408.37 crores while the withdrawals for meeting the expenditure on replacements from the Fund were of the order of Rs. 327.68 crores only. There was a net accretion of Rs. 80.69 crores to the Fund during these four years even when the Railways suffered a deficit of Rs. 67.49 crores over these years. The Committee consider that in years when the Railways run at a loss, the contribution to the Fund should be related as far as possible to the actual requirements.

Heavy accumulation of Station Outstanding

Audit Paragraph

1.96. Station Outstandings represent unrealised traffic earnings accrued to the Railways on account of service already rendered to the Railway users. The heavy accumulation of station outstandings on five Railways was commented upon in Para 40 of Audit Report (Railways) 1961. The Public Accounts Committee in Para 76 of their 40th Report (Second Lok Sabha) expressed concern at the heavy outstandings and felt that any delay or complacency on the part of Railway staff dealing with outstandings should not be countenanced. The Committee, therefore, desired that the Ministry of Railways (Railway Board) should tighten up the then existing procedure by introducing such changes as were found necessary. The Ministry of Railways Railway Board) in a memorandum submitted to the Publice Accounts Committee stated that periodical reviews of station outstandings were carried out both at the Railway level and in the Railway Board's office to ensure direct watch over the outstandings and to act as a safeguard against any delay or complacency on the part of the staff. The Ministry of Railways (Railway Board) also admitted that the position was not satisfactory and assured the Committee that they would continue to pursue the problem until normalcy was achieved.

1.97. A review of the station outstandings, however, shows that it has recorded a steady rise from year to year as indicated below:—

All Railways

(Amount in crores of Rs.)

Year	Total outstandings	Outstandings over one year old	Gross earnings	% of Col. (2) to Col. (4)	% of Col. (3) to Col. (4)
(1)	(2)	(3)	(4)	(5)	(6)
1964-65	10·68	1·92	664	1·6	0·29
1965-66 . .	14·75	2·40	746	2·0	0·32
1966-67 . .	22·43	2·85	775	2·9	0·37
1967-68 . .	25·02	3·56	821	3·0	0·43
1968-69 . .	31·03	5·08	901	3·4	0·56

1.98. The latest outstandings for the year ending 31st March, 1969 amounting to Rs. 31 crores are on account of the following factors:—

(In crores of rupees)

Category	Total outstandings	Outstandings Over-one year old.
(a) Freight on consignments on hand	8·18	0·35
(b) Freight on consignments not to hand	16·69	2·42
(c) Wharfage and demurrage charges	3·70	1·37
(d) Admitted debits	0·39	0·21
(e) Objected debits	1·64	0·62
(f) Miscellaneous	0·43	0·11
TOTAL :	31·03	5·08

1.99. The details of the outstandings over one year old and over 10 years old are as indicated below:—

Railways	Total outstandings (in crores)	Outstandings over one year Old (incrores)	Outstandings over 10 years old (in thousands)
Central	2.98	0.25	..
Eastern	6·70	2·13	1·49
Northern	5·71	0·43	55
North-Eastern	1·90	0·43	98
Northeast Frontier	1·74	0·42	33
Southern	3·31	0·21	10
South Central	0·88	0·22	..
South Eastern	3·86	0·58	249
Western	3·95	0·41	19
TOTAL	31·03	5·08	613

It may be seen from the above that the Eastern Railway alone accounted for 21.6 per cent of the total outstandings and 41.9 per cent and 24.3 per cent respestively of the outstandings over 1 year old and over 10 years old.

[Paragraph No. 9—Audit Report (Railways), 1970].

1.100. The Committee pointed out that despite an assurance given to the PAC in 1962-63 that the problem of station outstandings would be pursued until normalcy was achieved, these outstandings had increased three fold within a period of four years ending 31st May, 1969. The Financial Commissioner, Railways, while enumerating the factors responsible for such an increase stated during evidence:

> "It is a very difficult problem. We have been trying our best to find the solution as the situation had deteriorated because of certain factors.
>
> The volume of the receipts itself had increased. Actually as a percentage of gross earnings it has increased two fold, not three fold. That itself is bad. One of the reasons that we find is mechanisation and computerisation. Previously there was a time lag. As a result of computerisation the time lag has been removed. Of the 31st crores which was outstanding on 31-3-1969, 16.69 crores were due to freight on consignments not received. It takes longer time—from 15 days to one month—for the consignment to

reach the consignee's station. Because the accountal is done quickly on the computer, before the goods reach their destination we get the outstanding.

We examined how much of the outstandings we have been able to reduce after one year or 15 months. We found Rs. 31 crores has come down to Rs. 5.3 crores on 30th June, 1970. As time passed by, it becomes harder to reduce the outstandings. Some are court cases. Some are cases where the consignments are missing. Now-a-days there are lot of thefts and pilferages. If a particular item is stolen, the claim is paid but the freight was not cleared in many cases from the outstandings. Now we have issued special instructions to see that such cases do not occur."

1.101. Some of the steps taken or proposed to be taken by the Railways for accelerating the recovery of outstandings were outlined by the Financial Commissioner, Railways as under :—

"But ultimately, Sir, I think we will have to take some drastic steps. We are considering the measures in consultation with the General Managers. We have to consider very carefully. One suggestion was whether we should not have pre-payment at least on certain categories of goods. Then we have to consider what effect it will have on the traders, and on the economy and whether it will lead to diversion of traffic. So, we have to consider all these factors. But to the extent possible, we have issued instructions. We are deputing Inspectors of Accounts, and in cases where the amounts outstanding are large, even the senior officers speak to the major parties and try to get them reduced. Of course, we have to depend upon their goodwill also because if we penalise, they will say that they will send it by road. We have to exercise a sort of gradual pressure on them. We have achieved some measure of success even in one-year old outstandings."

1.102. The Committee pointed out that the number of cases which were more than one year and ten years old had also gone up. The Financial Commissioner, Railways, stated that they were considering to take more rigid steps but there were some handicaps. In this connection he pointed out : "We have to consult the trade. For instance, in UK, practically all the consignments are pre-paid. In USA also, 90 per cent is pre-paid. If such practices will be applied

to India, the present credit conditions will be disturbed, and there will be some measure of diversion of traffic to road. And we want to do it gradually. And, perhaps, we will do for some selected commodities. Already, we are insisting on some commodities—dangerous goods and also on low value goods like stones. We can increase the coverage of prepayment."

1.103. The Committee desired to know reasons for the exceptionally large accumulation of station outstandings on the Eastern Railway which alone accounted for 21.6 per cent of the total outstandings. The Financial Commissioner, Railways, explained the position as under :

"I was myself concerned with the Eastern Railway. And I talked to the General Manager and he has also taken some special steps. We found, for instance, that the Eastern Railway has a fairly large number of industrial sidings. And I think it has something to do with the general situation there also, because there the trade finds it difficult to make profits. They are not getting enough credit. And you know the difficult conditions in Bengal; Eastern Railway covers major part of it. And people delay payment as much as they can. We do not want to pressurise. And we cannot press beyond a point. The General Manager has asked his senior Marketing Officials personally to contact the defaulting firms. The General Manager himself talked to some firms and got some amount cleared. And there is some dispute about the wharfage and demurrage charges in many cases. And in the case of dispute about between a steel company and ourselves, after a good deal of argument, our people agreed to give higher waiting time on wagons. And that reduced the amount of wharfage and demurrage charges. Like that, some amounts are reduced.

And I am glad to say that this matter is under constant consideration of the General Manager and he has created a Special Cell in his headquarters office particularly to watch the wagons consigned to and from the steel plants. And he is also making contacts at various levels with big industrial firms; sometimes threatening the stoppage of wagons. Of course, in this way the industrialists are in-

> convenienced to some extent, but we will also suffer. I think we will not spare any efforts. We are very much aware of this problem and we will not stop at any measure which will reduce the outstandings. It will take some time."

1.104. The Committee were informed that out of Rs. 6.70 crores which was outstanding on Eastern Railway on 31-3-1969, Rs. 4.04 crores had been cleared bringing down the balance to about Rs. 2 crores.

1.105. During evidence the Committee were informed that the amount of Rs. 5.08 crores outstanding for more than one year on 31-3-1969 had been brought down to Rs. 2.69 crores on 31-3-1970. The Committee pointed out that in view of the fact that consignments normally should not take more than a month to reach the destination station, there should not be such huge sums of freight outstanding for over a year. The Committee enquired whether it could be inferred from these figures that action taken to trace the missing consignments was inadequate. The Financial Commissioner stated in reply :—

> "Here again, I agree that the position is not too satisfactory. But, we know we receive compensation claims. They are given 6 months time. And they also take some time to prefer the claims. Then, we make the enquiries. So, sometimes these adjustments of outstandings take over a year. We also find that even when the claims are paid, the adjustments are not properly linked within the year. We have given instructions in this respect some months ago. Whenever a claim is paid, we also link it up with the outstanding so that the amount is reduced."

1.106. The Committee desired to know the reasons for heavy outstandings due to consignments on hand as under rules consignments not taken delivery of in a month's time required to be transferred to the Lost Property Office.

1.107. The Financial Commissioner, Railways, stated that even though under rules consignments could be transferred to the Lost Property Office after a month, they were not doing so in order to obviate unnecessary inconvenience to the public. They, therefore, normally waited for six months. Another witness explained the

position as under :—

> "I might explain that before goods can be transferred to the Lost Property Office, under the Indian Railways Act, a notice has to be given to the consignee and the consignor to tell them that this consignment is waiting for delivery and if they fail to take its delivery within such and such time, it will be transferred to the Lost Property Office. Without giving that notice the transfer of the goods to the Lost Property Office would be illegal. Usually the minimum notice days are fifteen days, during which they are asked to take delivery. Therefore, after the consignment has arrived, we would wait for one month and if they do not come and take the delivery, then we will give the notice and wait for fifteen days. If we do not do this, the transfer to the Lost Property Office is out of question."

1.108. The Financial Commissioner, Railways also added that the transfer of a consignment to the Lost Property Office did not automatically clear the outstanding and the freight will remain outstanding until the Accounts Office issued a clearance for it.

1.109. Asked as to the advantages and improvements achieved on computerisation of traffic accounts, the Financial Commissioner, Railways, deposed that this had actually resulted in inflating the outstandings as the accountal of transactions was immediate under mechanisation. A note (Appendix III) furnished to the Committee outlines the detailed procedure of accounting leading to the working out of station outstandings under the mannual accounting system and after the computerisation.

1.110. As regards the advantages of computerisation, the witness stated : "Goods invoices are checked 100 per cent. Previously, we used to check a small percentage. As a result, I think, we discover mistakes amounting to Rs. 90 lakhs every year. We also submit bills quickly. Commercial and goods statistics are submitted expeditiously. Most important is that the Station Masters have been given considerable relief in the matter of preparation of station abstracts. Thus they can devote their time to other matters."

1.111. The Committee are concerned to note that the station outstandings have increased three fold during the four years ending 31st March, 1969. The percentage of total outstandings to gross earnings has also doubled during this period thereby indicating that the increase in the station outstandings was disproportionate to the growth

of gross earnings. Outstandings over one year old increased from Rs. 1.92 crores in 1964-65 to Rs. 5.08 crores in 1968-69.

1.112. The Committee regret to observe that instead of showing improvement the position has deteriorated since 1962-63 when the Committee had in their 40th Report emphasized the need for tightening up of the existing procedure with a view to clear the outstandings. The outstandings have since then been steadily rising from year to year. It is seen from the Audit para that out of the total outstandings of Rs. 31.03 crores for the year ending 31st March, 1969 'Freight on consignments on hand' and 'Freight on consignments not to hand' account for Rs. 25.87 crores i.e. about 80 per cent. The Committee would like the Railway Board to examine in this context whether the existing rules regarding filing of compensation claims and transference of consignments to Lost Property Office call for a revision.

1.113. The Committee note that Railways are already insisting on pre-payment of freight on certain categories of consignments. The Committee would like the Railway Board to consider the feasibility of extending this practice to cover more commodities, as per practice obtaining in other countries.

1.114. The Committee are also concerned about the heavy outstandings relating to Eastern and Central Railways. The outstandings over one year and ten years old on the Eastern Railway are considerable. The Committee need hardly stress the need for tightening up the machinery for the expeditious clearance of both current and old outstandings on these two Railways.

Deteriorating position of late start of goods trains on Railways

Audit Paragraph

1.115. Goods trains on the Railways are ordered depending on the availability of load, path, power, the time required for completion of certain formalities such as attending to carriage and wagon defects, etc. But, often the ordered trains have to start late on account of failure of any of these factors.

1.116. The late starts may cause poor utilisation of engines and other rolling stock by keeping the locos and formed rake detained. Depending upon the circumstances of each case of delay, extra expenditure or other financial implications may be involved on account of fuel on engines or overtime or running allowance to staff or non-

utilisation of charted paths. Late starts are also an unsatisfactory feature of operation.

1.117. A review of statistics relating to late start of goods trains has revealed that the late start hours on the following Railways have increased very considerably in the recent years as compared with their past performance.

Railway	Past Performance		1967-68		1968-69	
	year	Late start Total Hrs.	hours per goods train Hrs. Mt.	Late start Total Hrs.	hours per goods train Hrs. Mt.	Late start Total Hrs.
Central (B.G.) .	1959-60	85,113	0 38	2,01,745	1 10	2,17,059
North Eastern (M.G.)	1963-64	9,525	0 07	23,591	0 16	*
Northeast . .	1964-65	17,607	0 28	20,461	0 34	23,558
Frontier (M.G.)						
Southern (B.G.) .	1960-61	31,000	0 40	45,580	0 46	34,026
(M.G.) .		13,629	0 11	34,939	0 29	46,297
Western (B.G.) .	1964-65	26,957	0 18	38,893	0 23	*
(M.G.) .		18,593	0 10	24,097	0 13	27,255

* Figure for 1968-69 not available.

1.118. The Ministry of of Railways (Railway Board) explained (December, 1969—January, 1970) that the increase in the late starts, in the recent years was attributed to the following :—

(i) Increase in density of traffic, both coaching and goods, without a corresponding increase in the facilities for dealing with the same. Inadequate facilities at important yards and crucial sections leading to congestion and consequent loss of mobility.

(ii) Mixed traction arising out of the need to have steam traction side by side with diesel|electric traction.

(iii) Frequent interruption to communications caused by control failures, largely due to outside interference.

(iv) Serious breaches on certain sections.

(v) Agitations and Civil disturbances.

(vi) Interruption to through running resulting from accidents.

(vii) Engineering blocks etc., during the process of remodelling of yards, execution of Line capacity works on certain sections and the teething troubles of newly commissioned assets.

(viii) Delays due to larger number of hot axles and other carraige and wagon defects.

1.119. The Ministry further explained that the position regarding late start is watched at all levels. Changes in the Running Allowance rules are also being introduced in order that they may serve as incentive to punctual running.

1.120. It is, however, observed that goods trains are ordered only after taking into account the availability of path, section capacity, load formation, power availability etc. Further, sufficient cushion by way of extra time is provided for attending to carriage and wagon defects. If any undue delays are expected on any occasion, cancellation of trains order is also resorted to.

[Paragraph No. 10—Audit Report (Railways), 1970].

1.121. At the instance of the Committee the following data regarding late starts of goods trains was furnished by the Railway Board:

(a) Particulars of late starts to goods trains for 1968-69 and 1969-70 in respect of Railways mentioned in the Audit Para :

Railway	1968-69			1969-70		
	Total No. of trains run	Total late start in hours.	Late start per goods train	Total No. of Goods train run	Total late start in hours	Late start per goods train
Broad Gauge						
Central . . .	183239	217059	1'-11"	202675	234513	1'-10"
Southern . .	78186	43672	0'-34"	77195	38296	0'-29"
Western . .	97033	42062	0'-26"	98711	41934	0'-25"
Metre Gauge						
N. Eastern . .	92624	19493	0'-13"	97330	15342	0' 09"
N. Frontier . .	48144	18835	0'-23"	51644	25224	0'-29"
Southern . .	93918	58218	0'-37"	95595	65732	0'-41"
Western . .	112584	27255	0'-15"	117565	24289	0'-12"

(b) Particulars of late start of goods trains in 1964-65, 1968-69 and 1969-70 on Railways other than those mentioned in the Audit Para :—

Railway	1964-65			1968-69			1969-70		
	Total No. of Goods Trains run	Total late start in hrs.	Late start per goods train	Total No. of goods trains run	Total late start in hrs.	Late start per goods train	Total No. of goods run	Total late start in hrs.	Late start per goods train
Broad Gauge									
Eastern	(Figures for late start to goods trains are not being maintained).								
Northern.	50017	9886	0′-12″	40257	14004	0′-12″	43867	5278	0′-07″
	(67460)	(12905)	0′-11″	(52228)	(16697)	0′-19″			
N.F.	3478	8138	2′-20″	5940	6119	1′-01″	5750	7712	1′-20″
S.P.	184833	98118	0′-32″	260835	849738	0′-20″	267148	101338	0′-23″
	(231164)	(125803)	0′-36″	(320483)	(108200)	0′-20″	(340893)		
S.C.	78808	104758	1′-20″	80409	78466	0′-58″	77405	64055	0′-50″
Meter Gauge									
Central	2860	2904	1′-0″	3261	5126	1′-31″	3634	4552	1′-46″
Northern	14963	2402	0′-09″	14049	6032	0′-27″	Figures being obtained from Northern Railway		
S. Central	84272	38747	0′-2″	89135	47890	0′-32″	87858	60493	0′-41″

NOTES:—(1) *All Railways:* . . . All figures are as per published domestic statistics of Railways concerned except N.F. Railway (M.G.) which has given revised figures.

(2) *S. E. Railway* . . .	Figures for 1969-70 are excluding Kharagpur Waltair Divisions. To enable proper comparison 1964-65 figures are also given excluding figures for these Divisions. Figures for entire S.E. Railway for these 2 years are shown in brackets.
(3) S. C. Railway (BG & MG):	Instead of 1964-65 figures for 1967-68 have been given as the Railway was formed in October 1966. In case of C. Rly. (MG) instead of 1964-65 figures, 1967-68 figures have been given, as the major protion of this system was handed over to S. C. Railway in October, 1966.
(4) Northern Railway (BG & MG):	Figures are maintained gauge-wise in respect of certain principal sections and not for the Railway as a whole. Instead of 1964-65 figures for 1965-66 have been given.
Northern Railway (BG): . .	As 1969-70 figures in respect of certain principal sections of Moradabad Division are not available, to enable proper comparison for 1964-65, and 1968-69 also figures outside brackets are excluding these sections while figures within brackets are including these sections.

1.122. From the above tables the following facts emerge:

(1) There has been a steep rise in the total hours of late starts on many Railways;

(2) In the case of Central (B.G.) total of late start hours increased from 2,01,745 hours in 1967-68 to 2,17,059 in 1968-69 and 2,34,513 in 1969-70. The average of late start per goods train is almost highest on this Railway. In the case of Central (MG) the position is even worse. The average late start per goods trains was as much as I hr. 31 Mts. in 1968-69.

(3) In the case of N. F. Railway (BG) the average late start per goods train increased from 1 hr. 01 mt. in 1968-69 to 1 hr. 20 mts. in 1969-70. In the M. G. section of N. F. Railway the average rose from 0.21 mts. in 1968-69 to 0.28 mts. in 1969-70.

(4) There was further deterioration in total late start hours in the case of Southern (MG) and South Easter (BG) and South Central (MG).

(5) Figures for late starts to goods trains are not being maintained by Eastern Railways.

1.123. According to the Railway Board, the reasons for deterioration in the case of South Eastern, North East Frontier Railways and BG and MG sections of Southern and S.E. Railways are:

S. E. Rly:

(a) Abnormal rains and widespread breaches on the East Coast line from July to September, 1969.
(b) State-wide bundhs and frequent cases of squatting on tracks by agitators of sub-urban sections in West Bengal.

(c) Labour indiscipline, particularly agitation by discharged casual labour.

(d) Hold up of loads due eto sporadic labour troubles and strike in Steel Plants.

(e) Abnormally heavy incidence of theft of Overhead equipment and telegraph/control cables.

N. F. Railway:

(a) Abnormal breaches on broad and metre gauge sections between Siliguri/New Jalpaiguri and Alipurduar in August, 1969.

(b) Interruption to traffic due to agitation in Assam for second refinery and other issues in July & September, 1969.

(c) Repeated instances of State-wide and local bundhs in West Bengal portion.

(d) Unrest and sporadic incidence of stoppage of work by railway staff at Alipurduar, New Jalpaiguri and Malda.

Southern & S. C. Railway:

(a) Telangana and anti-Telangana agitations.

(b) Mysore-Maharashtra border dispute agitation.

(c) Water scarcity in Vijyawada and Hubli Divisions of S.C. Railway due to inadequate rains.

(d) Breaches on Guntur-Donakonda and Guntur-Macherla sections in May and June, 1969.

(e) Strikes in Madras Port, Food Corporation labour in Madras Port and Cochin Refinery and Bhadravati Steel Plant resulting in stabling of loads and consequent difficult operating conditions.

Central Rly (MG):

Though there has an improvement on this system in 1969-70 as compared to 1968-69, water shortage particularly in 1968-69, affected goods operation on this system.

1.124. The Committee were informed during evidence that the running of goods trains was not bound by any published time-table but for a more orderly working Railways had a working time-table, although the working time-table was not available to the public. Railways stick to the working time-table because 'if we stick to the working time table greatest economy results from that.'

1.125. As regards the ordering of the goods trains, an official representative stated during evidence, ".....the facts that are taken into consideration are in fact very neatly summarised in this

para. We must have a locomotive along with a load fully ready. All wagons to be detached from an incoming train should be detached. Outgoing loads attached and a complete carriage and wagon examination to be made. There must also be the driver alongwith the crew, the guard, the brake van and so on. After having fixed up the time of departure, unless all these factors coincide, or if one of the factors does not materialise or materialises late, the train leaves late.

Recently, a change has come about. The steam locomotive required about four to six hours from the time when the locomotive arrived at the originating station, to the time it was taken out of the shed; and similarly, for ordering a train also we have to give generally four to six hours' notice. Thus, in the steam area, the train was ordered practically either after the locomotive has already arrived, or was approaching very nearly the base station. For diesel|electric locos we do not require four to six hours time. But, unfortunately, Sir, the conditions of work during the last few years have become not very conducive to efficient working."

1.126. Asked who was responsible for the proper working of the control, a representative of the Railway Board replied that the Transport Department as reprsented by the Chief Contoller and his deputies were the main functionaries who order the running of goods trains. He added that so long as the control was functioning, responsibility of the staff could be fixed but difficulty arose when the communications are interrupted mainly as a result of copper wire thefts.

1.127. The witness stated "if the communication system does not function well and the locomotive which should take the load onward is still 100 Kms away and the same locomotive has to work the train onward, its arrival in time in the absence of communications becomes almost impossible. In almost all cases we use the same incoming locomotive."

1.128. The Chairman, Railway Board: "In goods train the punctuality factor is not so much accurate but we estimate certain timing by which the train would come and on that anticipation we order a train. If this train gets late our calculation goes wrong. This is one of the factors but there are several other factors also."

1.129. The Committee called for facts and figures regarding thefts of copper wire for each zonal railway. The note furnished

by the Railway Board in this regard is reproduced below:—

"Maintenance of land lines of Control and (Railway) Administrative Trunk circuits devolves on Posts & Telegraphs Dept. Therefore, it is not possible to give exact figures of copper wire thefts, but during the course of discussions between Zonal Railway Administrations and P&T Dept. about the efficiency of performance of these circuits, Railway Administrations have been advised that the theft of copper wires and conductors was one of the main reasons for deterioration in percentage of efficiency of these circuits. The percentage efficiency figures of control and Railway Administrative Trunk Circuits on various Zonal Railways are given below:

Railway	Percentage of efficiency factor in								
	1961-62			1968-69			1969-70		
	Section Control	Deputy control	Adm. Trunk circuit	Section control	Deputy control	Adm. Trunk circuit	Section Control	Deputy control	Adm. Trunk circuit
Central	94·97	95·14	97·03	88·22	89·28	87·11	Not yet available		
Eastern	92·60	92·30	91·00	82·90	76·80	80·20	78·00	50·40	89·20
Northern	92·15	93·55	90·55	82·37	84·79	83·08	82·08	85·95	89·67
North Esstern	85·79*	95·62*	89·30*	69·40	71·60	70·10	57·90	66·50	79·30
N.F. (BG)	94·0*	†	89·0*	88·0	87·0	88·0	82·0	85·0	88·0
N.F. (MG)	81·0*	87·0*		82·0	90·0		82·0	82·0	
Southern	94·58*	95·86*	95·03*	95·36	93·39	94·53	92·99	92·77	94·47
	88·62	92·81	91·77	89·54	95·54	94·72	91·77	95·04	92·34
S.C. (BG)	85·52‡	80·24‡	85·51‡	84·23	80·24	85·76	81·0	76·96	82.53
S.C. (MG)	82·50‡	86·64‡		83·68	82·14		81·82	82·04	
South Esstern	93·70	95·80	94·00	90·10	89·30	90·10	87·40	84·00	90·30
Western (BG)	95·95*	95·50*	97·97*	90·16	88·55	92·78	90·20	91·35	92·56
Western (MG)	95·21*	96·76*	95·49*	91·30	95·90	95·32	91·42	95·75	94·81

*Figures for 1964-65

†No Deputy control circuit on N.F. Rly/BG in 1961-62.

‡Figures for 1967-68.

Notes:—

(1) For Southern Railway, figures above the lines are for circuits maintained by Railway and those below the line for circuits maintained by P. & T. Dept.

(2) For South Central Railway, figures for 1967-68 are given instead of 1961-62, as the Railway was formed in October 1966.

The steps being taken to improve the position in this regard are:—

(a) More intensive patrolling by police and RPF to prevent thefts.

(b) Replacement of copper wires by ACSR (Aluminium Conductor Steel Reinforced) conductors thereby reducing the possibility of thefts.

(c) Providing micro-wave channels.

(d) Radio patching to enable the affected sections being covered by micro-wave channels.

(e) Provision of radio telephone communications.

(f) Providing SSB wireless sets at stations|yards to enable them to maintain communications with controls|each other in case of interruptions

(g) Taking over of maintenance of Control and administrative runk circuits from P&T Dept. is under examination.

1.130. The Committee drew attention to the six reasons for the late start of trains given in the Audit para and enquired how the increase in density of traffic without a corresponding increase in the facilities for dealing with the same affected the late starts. A representative of the Railway Board explained: "Our main investment during the earlier plans and earlier years was secifically for coal and steel belts-mostly in the Eastern parts of India. There, a very large amount of investment was made in certain other parts, particularly, Grand Trunk Route, we had not created any surplus capacity. Now the Grand Trunk route is being developed and traffic on the G.T. route has gone up very considerably....We had spent heavily to meet the anticipated traffic in the Eastern parts of India, e.g. in coal belts and steel belts. It is there we had actually prepared ourselves because of the figures given to us by the various ministries. It is there our investment has been heavily concentrated but due to

traffic not coming up, these are not fully utilised while our lead had started increasing. The traffic now is moving towards the northern part of India because we had the green revolution in the northern region, therefore more and more traffic is going towards Delhi and South."

1.131. Elaborating this point, the Chairman, Railway Board stated: 'Increase in traffic has not affected delay. We have got more traffic, therefore, on particular routes our operation becomes difficult because the saturation point of movement has been reached in these routes. That means you can reach so many trains. We have already approached that number and when a saturation goes above 80 per cent then the opertion becomes very very difficult. So that is what we wanted to say."

1.132. Asked whether in view of the increased traffic it was not possible to avoid late starts by re-arranging the programmes of running trains, the Chairman, Railway Board replied that it was not possible to cut down the number of trains because the traffic on hand has got to be moved.

1.133. The Committee pointed out that in the context of the findings of the PAC (1966-67) about the creation of traffic capacity of Railways far in excess of the requirements, it was not clear how the inadequate traffic facilities at important yards etc. could be a valid reason for the late start of goods trains. In this connection, the Chairman, Railway Board stated: "Whatever development we do in a Plan is with referene to particular traffic. Our capacity is so many million tons. If you say that you better transfer the capacity now from one paticular place where you have developed to other particular place, it is not possible. Our capacity has been developed in some places but there are very many places where we have not got the capacity developed also. As we are trying to explain, although we have got enough capacity say from Calcutta to Madras, I have not go enough capacity from Delhi to Madras. I have not got the capacity *via* the Central Railway route to Bombay. I have not got unlimited capacity even by the Frontier Mail Route to Bombay. Goods trains are coming. Difficulties become more because increase has gone on in traffic and we have not been able to carry out whatever is required in these yards. As a matter of fact our present programme is to develop the capacity in these places. That is what we are doing now.....The only thing is when the Section becomes saturated, it means I have got only a limited number of paths by which we must send our trains out. I start delaying trains. I want the path for another train."

1.134. The Committee enquired how the mixed traction affected the late starts of the trains. It was explained that "if we have got all the trains which are capable of running at the same speed, then there will not be cases of overtaking of a slower service by a faster service. Whenever this overtaikng takes place, you get detention more and more. This is one of the big disadvantages of this mixed traction today. Maximum efficiency will come if all trains run at equal speed. This mixed traction has got that very inherent defect."

1.135. To a question as to what steps had been taken to remedy the situation, the Chairman, Railway Board replied: "What we have tried to do is to take on the bigger operation of the load on a particular line on to the diesel traction so that we get maximum economy by these and leave the inferior services to the steam till such time as we have got enough diesel locomotives which will take some years, when we can not only cut out the steam, but also remove these and bring in real economy. Today we are only tring to keep our capacity and efficiency of operation to the maximum possible extent. The first step that we have taken is to electrify the section wherever possible, and we will be able to take out the steam traction completely. For that we are only waiting for some of the diesel shunters to be manufactured by our Chittaranjan Locomotive Works. Once we have got that our electric section as well as goods services will be taken up by those diesel locomotives of Chittaranjan and steam will go off. But diesel traction will take a long time."

1.136. Asked how accidents and serious breaches affected the late starts, the Chairman, Railway Board replied: "There are ample reasons. Supposing you are starting a train from Madras going towards Bombay, now, it should normally take the Raichur route. But supposing the Raichur route is affected, then all the trains get upset and you start operating by the diverted route of Bezwada and things like that. Sometimes there is late starting also. But as I said, this should not be taken as a general rule."

1.137. The Audit para states that one of the reasons for increase in late starts is the large number of hot axles and other carriage and wagon defects The Committee enquired as to what were the

traffic not coming up, these are not fully utilised while our lead had started increasing. The traffic now is moving towards the northern part of India because we had the green revolution in the northern region, therefore more and more traffic is going towards Delhi and South."

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7.137. The Audit para states that one of the reasons for increase in late starts is the large number of hot axles and other carriage and wagon defects The Committee enquired as to what were the

reasons for large number of such defects. In a note, the Railway Board have stated:

"Railway-wise statistics of cases of hot axles (monthly)

per one million wagon kilometres are given below:—

Railway	1964-65	1968-69	1969-70
Central (BG)	11·0	4·16	3·17
N. Eastern (MG)	0·68	1·20	0·53
N. Frontier (MG)	0·63	1·22	0·50
Southern (BG)	3·20	2·51	2·45
Southern (MG)	1·27	1·30	1·10
Western (BG)	5·43	2·55	1·79
Western (MG)	2·26	2·09	1·22

The position has shown improvement in 1969-70 though the higher incidence on North Eastern, Northeast Frontier and Southern (MG) Railways affected goods operation in 1968-69.

Some of the broad reasons for increased incidence of hot boxes/ wagon defects (for which figures not available separately) are:—

(a) Interference with and theft of bearing brasses, waste packing and other fittings.

(b) High speeds, particularly for diesel and electric traction.

(c) Though trains skipping carriage and wagon examination in a number of yards.

A separate organisation was set up a few years ago to study the reasons of hot boxes and suggest steps to remedy the situation. The results achieved on account of this organisation are reflected in the improvement in 1969-70. Incidence of hot Boxes is kept under continuous review and detailed investigation. For Railways where the increase has taken place in 1968-69 the causes are under further investigation."

1.138. In a further note on the subject, the Railway Board have stated:

"During 1968-69, there had been a deterioration in the incidence of hot boxes on the metre gauge sections of Southern, North Eastern and Northeast Frontier Railways. Factors responsible for increase in the incidence of hot boxes during 1968-69 on these sections were:—

(i) Increase in the number of cases due to dry packing;

(ii) unsatisfactory finish of the journals;

(iii) defects in the bearing brasses; and

(iv) use of heavy axle oil.

Repacking procedures in the depots and workshops where dry packing was found to be in vogue were improved to ensure that the specified amount of free oil was added at the time of repacking of axle boxes to eliminate dry packing. Oiling in yards was also introduced.

Due to non-availability of burnishing lathes, journals had to be ground finished and in many cases the finish was not satisfactory as there were chattering marks and burrs which contributed to hot boxes. Strict control was imposed to obtain a satisfactory finish on the grinding machines. More stage inspections were introduced.

Defects in bearing brasses were due to the use of Class II and III bronze shells instead of class V, due to paucity of zinc which adversely affected the tinning and bond strength. The white metalling technique was re-checked and altered to obtain an improved value for bond strength. Rigorous inspection was also introduced in all white metalling sections.

On the Southern Railway, due to irregular supply of medium axle oil which is specified, use was made of heavy axle oil which had a higher viscosity. The use of medium axle oil has been reintroduced.

The remedial steps indicated above have brought down the incidence of hot boxes and the improvement is reflected in the figures for 1969-70 as shown below:—

Railway	Hot Boxes per million wagon Kms.	
	1968-69	1969-70
North Eastern	1·20	0·53
Northeast Frontier	1·22	1·01
Southern	1·30	1·13

1.139. The Committee desired to know the steps taken by Railways to eliminate or minimise the effect of various factors responsible for late starts. The Chairman, Railway Board stated: "As I told you, the first reason is communication. We have improved the communication by changing of copper wire. The second reason is 'saturation' of routes. We have already taken up the doubling programme. The route to Madras is one of the routes which is very important and we have started doubling it. We have made an improvement of sections of the Grant Trunk route for doubling within the Fourth Plan. Then, we have also included for doubling a part of the Western Railway route and we have also included the Southern Railway. From Jalarpet we are doubling the route to Olavakot and may carry it up to Cochin.

Another step we have taken is 're-modelling'. We have taken up re-modelling of the Southern Railway. Bitragunta. Bezwada, Kazipet, Agra, etc. are some of the areas we are re-modelling so that we do not get yards coming in our way.

As regards traction, as I told we are electrifying gradually. We are only held up for diesel engines from Chittaranjan. As I told you, diesel in place of steam traction will take a long time.

Now, as for the subsidiary causes, one is 'hot-axle'. I do not know whether information has been given to you that we have had a Special officer of the Head of Department's rank for over two years now for investigating the causes and taking remedial measures. We have his recommendations. We have implemented some of them and are continuing to implementing them so that progressively these cases come down."

1.140. As regards the cancellation of trains, a representative of the Railway Board stated during evidence: "It is a remedy worse than the disease, because when I cancel the train, by that time many things have been got ready; such as the Guard has made himself ready the engine has come with the crew etc. Four to five hours notice is necessary for this. The other incoming trains would also be delayed due to want of lines. The result is that there will be chain re-action. Cancellation of the train is a remedy which can be resorted to only in extreme cases. Normally we do not cancel it."

1.141. The Committee enquired whether the number of cases of ordered trains were available. In a note, the Railway Board have stated: "These statistics are not maintained and cancellation or putting back of goods trains, particularly on saturated sections is generally not resorted to on account of:

(a) Non-availability of room in yards for dealing with subsequent trains.

(b) When engine/crew have come out on duty, putting back a train results in unnecessary payment of running allowance and sending back the engine to shed.

(c) Late availability of engines at the terminal stations, which adversely affects operation elsewhere, particularly when the engine is a diesel or electric loco, as these engines are intensively pooled.

(d) Detention to lead thus cancelled or put back.

1.142. The Committee desired to know the various existing procedures under which the position of late start of goods trains is watched with a view to keep them under control. In a note, the Railway Board have stated:

"Late start to goods trains is watched at various levels as indicated below:—

(i) In every principal yard, late start statements are jointly examined by the Yard Master, Head Train Examiner (or Carriage & Wagon Inspector) and Loco Foreman, to study the incidence of late start with reasons thereof and wherever necessary, remedial action is taken.

(ii) Details of late starts from each yard in the Division are studied in the control office by the Chief Controller and Power Controller and again by the Divisional or Asstt. Operating Supdt. (M) and Divisional Mechanical or Asstt. Mechanical Engineer (Loco and Carriage & Wagon).

(iii) Statistics of such late starts are reviewed by Divisional Supdts. In the monthly Divisional Officers meeting.

(iv) These late starts are included in the published monthly statistics of the Railways and are reviewed occasionally at Headquarters level between Dy. Chief Operating Supdt. (G) or STO (G) and Dy. Chief Operating Supdt. (Power).

(v) These also come up for discussion when situation warrants between the Chief Operating Supdt. Chief Mechanical Engineer and other heads of the departments concerned.

(vi) When necessary, they are also considered in monthly meetings of Directors of Railway Board to review statistical results of each zonal railway."

1.143. As regards the financial consequences of the late start of trains, a witness deposed: "This late start is one of the worst forms of operation that we can have, as it has very serious effects on the train running. In the first place, it throws all other trains running out of gear, and, secondly, the working time table again is completely upset. The effect indirectly is very serious. But we cannot put it in monetary terms."

1.144. However, to a question whether Railways had attempted any appreciation of at least the direct financial consequences of late starts, the witness stated: "Financially, it has bearing directly on over-time, running allowance and fuel consumption. We have not assessed before; we have not made a very formal examination of the financial implications, but we can have a pilot scheme. We have not done the financial analysis because the conditions differ from place to place, and practically each train has to be dealt with as a separate unit. But generally speaking, in the case of fuel consumption, the electric locomotives are shut off and no fuel is consumed; diesel is also shut off and no fuel is consumed. In the case of steam, the consumption is 20 per cent. And as far as the running allowance is concerned, we do not pay them the running allowance when the train is having the late start from the originating station. The overtime allowance has definitely got an effect."

1.145. In reply to another question he added: "If a train arrives one hour late, it will not affect the trader. It so happens that if the train comes late, wagons come a bit later but in time for unloading. Generally speaking, the goods shed hours start from in the morning to 18 hours. Therefore, the late start may not have a very great influence on the traders."

1.146. The Chairman, Railway Board informed the Committee about the changes made in the Running Allowance Rules. He stated: "Formerly you see, a Driver would first report to the loco shed. From that point his duty starts. Then he goes to the yard and is attached to a train. Now, from the time he is attached to a train till the time of its departure, according to the Old running Allowance Rules he used to get 15 kilometres per hour—that is, he used to get mileage at the rate of kilometres per hour. Today we have modified this. Now he does not get any mileage benefit. This was

done because, sometimes, the delay was caused intentionally by the crew because they were earning mileage all the time. We have therefore eleminated that now. This is a major improvement we have effected."

1.147. The Committee are unhappy to note that the position of late start of goods trains has deteriorated in recent years. There has been a steep rise in the figures of total late start hours in most of the Railways. In the case of Central Railway (BG) and Northeast Frontier Railway the position is very unsatisfactory. On these Railways the average late start per goods train ranged between 1 hr. 1 mt. to 1 hr. 31 mts. in 1968-69 and 1969-70. This needs to be looked into.

1.148. The Committee feel that with the improvements in traffic facilities, as a result of completion of remodelling of yards, line capacity works, doubling of important trunk routes, etc. and introduction of diesel and electric traction as per Plans, it should have been possible for the Railways to improve on their past performance or at least arrest any deterioration. The Committee need hardly emphasize that late starts are not only an unsatisfactory feature of train operation but have considerable financial implications leading to increase in operating and other expenses of the Railways. It is, therefore, in the interest of economy and efficient operation of train services that the late start hours of the Railways are reduced to the barest minimum.

1.149. The Committee would like the Railway Board to evolve a procedure whereby responsibility of the staff for late starts is fixed and adequate action is taken against the staff at fault.

1.150. The theft of overhead copper wires has been adduced as the main reason for late start of most of the trains. The Committee feel that the replacement of copper wires by ACSR (Aluminium Conductor Steel Reinforced) wires, which is stated to be in progress, should be expedited and completed as early as possible.

1.151. The Committee note that the figures for late start to goods trains are not being maintained on the Eastern Railway. The Committee fail to understand how the late start of goods trains on this Railway is being watched without these figures. The Committee would like the Railway Board to look into the matter urgently and apprise the Committee of action taken to keep an effective watch on late start of goods trains on Eastern Railway.

December, 1966 that they could manufacture and supply the Suri transmissions and reversing gear boxes for the diesel shunting locomotives according to the requirements of Chittaranjan Locomotive Works after 15 months from the date of placement of the order. The firm also agreed not to insist on exclusive licence. The firm quoted Rs. 3,50,000 per loco set (with foreign exchange assistance of Rs. 50,000 approximately per loco set) and indicated that with their experience of manufacturing hydraulic torque converters, heavy duty hydraulic marine gears, drop boxes and final drives for industrial shunting locomotives, they were confident of manufacturing the Suri transmissions and reversing gear boxes to the entire satisfaction of Chittaranjan Locomotive Works. Even at this stage, the Ministry of Railways (Railway Board) did neither accept the offer of the firm nor take a decision as to whether Chittaranjan Locomotive Works or any other Railway Workshop should develop the items, but invited limited tenders in March, 1967 from firms in Germany for the power packs including Suri transmissions and reversing gear boxes for the 33rd shunting locomotive onwards and ultimately placed the order on the same German firm (on whom the first order was placed) in November, 1967, which included 15 sets of Suri transmissions and reversing gear boxes. The estimated landed cost of Suri transmission and reversing gear boxes imported from Germany worked out to about Rs. 3,62,400 with foreign exchange element of Rs. 2,78,773 per loco set.

2.4. The indigenous firm represented again in August, 1967, that they should be given an opportunity to manufacture the Suri transmissions and reversing gear boxes. Thereupon an order for 18 loco sets of Suri transmission and reversing gear boxes was placed on this firm in November, 1967, at the rate of Rs. 2,20,183 per loco set with the stipulation that the Railway Administration would arrange for the free supply of components (worth Rs. 1,29,817 involving foreign exchange of Rs. 97,424 per loco set) to be imported from Germany and that the prototype would be delivered in October, 1968 and regular supplies would commence from January, 1969 at the rate of 4 to 5 loco sets per month subject to the free supply items being made available three months in advance. The first instalment of free supply items imported from the German firm were delivered to the indigenous firm by March/April, 1969. The firm delivered the proto-type Suri transmission in September, 1969 which passed 100 per cent load test at Chittaranjan Locomotive Works in December, 1969. Meanwhile, the firm had commenced series supply from October, 1969 onwards. Proto-type reversing gear boxes, however, has not yet been delivered (December, 1969). The supply to the firm of some imported components which Railways were

II

PURCHASE AND STORES

Delay in the indigenous development of components for power packs used in Diesel Locomotives

Audit Paragraph

2.1. The Ministry of Railways (Railway Board) placed an order in November, 1967 on a German firm for power packs for the 33rd to 62nd broad gauge diesel hydraulic shunting locomotives to be manufactured at Chittaranjan Locomotive Works. The contract included 15 complete sets of power packs with Suri transmissions and reversing gear boxes and 15 sets without these items. It was expected that the Chittaranjan Locomotive Works would be able to make the Suri transmissions and reversing gear boxes for the 48th locomotive onwards with progressively increasing indigenous content.

2.2 As early as November, 1965, an indigenous firm sought the permission of the National Research Development Corporation for the manufacture of the Suri transmission with a request for exclusive licence. On being referred to by the National Research Development Corporation for advice, the Ministry of Railways (Railway Board) decided in November, 1965, that for railway purposes, the Suri transmission would be developed either in Railway Workshops or in the Public Sector and for other than railway purposes the licence could be issued to outside parties. But no decision was taken as to the agency which would develop the item for railway purposes. Meanwhile, in March, 1966, the Chittaranjan Locomotive Works Administration placed an order on a German firm (letter of intent issued in July, 1965) for 32 sets of power packs including the Suri transmission and reversing gear boxes required for the first order of 32 diesel shunting locomotives programmed to be turned out from December, 1967 to November, 1968.

2.3. In October, 1966 the indigenous firm renewed their offer and after discussing the feasibility of indigenous manufacture with the Chittaranjan Locomotive Works Administration, confirmed in

required to arrange free of cost has been delayed. On the other hand the 33rd diesel shunting locomotive which was earlier expected to be turned out in November, 1968 is not likely to be turned out before January, 1970 inasmuch as only 26 shunting locomotives have been turned out upto October, 1969 and Chittaranjan Locomotive Works Production Programme does not exceed three shunting locomotives per month.

2.5. If a prompt decision had been taken on the agency for developing the indigenous manufacture of Suri transmission and reversing gear box in November, 1965 or at least in December, 1966 when the indigenous firm came up with repeated requests, it would have been possible to develop the indigenous manufacture of these components for power packs earlier and thereby reduce or even avoid the import of these items involving foreign exchange and extra expenditure.

2.6. The Ministry of Railways (Railway Board) stated (December, 1968) that the indigenous firm asked for exclusive licence in November, 1965 which could not be agreed to as it would have created monopoly. There was, however, a delay of one year in placing the order on the firm even after the firm offered in December, 1966 to manufacture the items without insisting on exclusive licence.

[Paragraph No. 11—Audit Report (Railways), 1970]

2.7. Explaining the process of development of Suri transmission, a representative of the Railway Board stated: "This is a hydraulic mechanical transmission which is used on diesel locomotive. This was developed by one of our engineers. The idea was conceived by him, but the development was done in Germany. The transmission depends and has to match the diesel engine with which it has to work. It is not only the question of horse power, but also the entire characteristics of the engine with which this transmission has to match. If the characteristics are of a particular nature, the transmission is designed for that. If the characteristic are changed, in other words, the engine is changed, the transmission has to be redesigned.

Sir, when the question of developing this transmission in 1959 was first considered, we adopted a MYBAC engine of 650 H.P. with which this transmission was matched. When the development took place in Germany and the first locomotive was shipped out, we had some teething troubles. It was difficult to find out whether the

trouble was due to the engine or the transmission. Finally after some time by March, 1966 we were definite that some of the trouble was also due to the engine. Therefore, we changed the engine from MYBAC to MAK and the Suri's transmission was redesigned to match this engine. This was finally completed in April, 1967. Therefore, Sir, the point that I am making is that Suri's transmission was not a standard item. We were not decided or definite about the design of Suri's transmission that would be used because the engine itself was not finalised. This is a developmental item, where the development has to suit the particular engine for which it is designed."

2.8. The Committee were informed that the agreement conferring the right for manufacturing and sale of Suri Transmission in countries other than India on the West Germany firm was signed on 28th April, 1961 although it became effective from 1st October, 1959. The agreement is for a period of 14 years lasting upto 30th September, 1973 and M|s. MAK, who are licensed for the manufacture of this particular equipment are required not to obtain licence for any other type of transmission during this period. The license is on an exclusive basis for all countries except India where the NRDC and Railways have the right to grant licences.

2.9. As regards the development of Suri Transmission in India, the witness stated: "....upto April, 1967 the Suri transmission had not been licensed because it was giving teething troubles and because the engine itself was not finally approved. It was under examination. The question of its manufacture was examined both in the Railway workshops as well as other public sector units. At Chittaranjan we found that the manufacture could be undertaken with an additional expenditure of Rs. 35 lakhs most of which would be in foreign exchange. We also examined the possibility of manufacturing this in other public sector units like the H.E.L., Bhopal, the Heavy Engineering Corporation, Ranchi, H.M.T., Bangalore etc. and we found that they did not have the capacity to take on this work. Finally, Kirloskar who were showing interest in this particular development were given an order for 18 sets in November 1967. They have made some supplies and we are giving them some more orders. So, development of this transmission has now been established and we are hoping that the item which is being produced by Kirloskar would be satisfactory. There have of course been some troubles which always happen with items of this kind, but they have already supplied some equipment which is being tried out".

2.10. The Committee called for a statement giving in chronological sequence the action taken to develop indigenous manufacture of Suri Transmission since 1961 upto 1965. The relevant information furnished by the Railway Board is reproduced below :

Date	Event
1956-57	Shri Transminsion was invented by Shri M. M. Suri.
July'56	Application submitted by the inventor for getting this invention patented by the Patent Office of the Government of India.
18-1-58 16-10-58 17-9-60	Application (s) having certain modifications/additions to the original patent submitted for geetting the midifications/additions Pattented by the Patent Office.
11-3-59	The First order for the supply of 7 shunting locomotives fitted with Suri Transmission placed on M/S MAK, West Germany.
14-10-59	First application accepted by the Patent Office.
28-4-61	Agreement signed between National Research Development Corporation of India/Ministry of Railways and M/S MAK granting licence to manufacture, use and sale of Suri Transmission for the period of 14 years from 1-10-59 the right to M/S MAK was exclusive in all countries except India.
Oct./Nov/ 1960.	Suri Transmission was first bench tested at Works of M/S. MAK, West Germany.
16-4-61	First loco out of the 7 ordered on M/S. MAK, West Germany received in India.
4-4-62	The last application involving modifications/additions accepted by the Patent Office.
12-8-61 to 2-6-62	Remaining 6 locos out of 7 ordered on M/S. MAK, West Germany received in India.
9-10-61	A report on the "Operational Tests" of MAK, Biesel locomotives with Suri Transmission received from Federal Railway. This report was of very general nature and did not approve or disapprove any individual claim made about the Suri Transmission which was found to be much bigger than those of the others; a number of reasons included leakage of fuel in the diesel locomotive were given in this report for this high consumption.
June'62 to July'62	Starting "Adhesion test" conducted by RDSO.
June'63	Report on "Rating and performance test" revised by RDSO.
15-6-63	Order for the manufacture of 30 diesel shunters fitted with Suri Transmission placed on Jamalpur Workshop of the Eastern Railway.
Sept.— Oct.'63	Rolling "Resistance Trials" conducted by Addl. Member Mechanical Railway Board.
Dec.'63	"Humping Shunting" and "Shuttle Service" trials conducted by RDSO.

Date	Event
20-7-63	Decided that one Voith type transmission should be procured and fitted on one of the 7 locos imported from West Germany in place of Suri Transmission and tests with the 2 types of transmissions carried out to determine their comparative merits.
3-3-64	Decided to transfer the order for the manufacture of 30 locos from Eastern Railway to CLW as the production of steam locos Ex-CLW was to be tapered of.
May'64	Decided to appoint a Committee consisting of 4 officers to conduct the investigation and submit a report on the working of 2 types of transmissions.
Nov.'64	The Committee appointed in May'64 submitted its report.
29-12-64	Tenders invited by CLW for the procurement of power packs for 30 Nos. Locomotives.
8-3-65	Tenders were opened.
30-7-65	Decided to place on order for 32 power packs on MAK, West Germany and also that out of 32 packs, 27 should be fitted with Suri Transmission and the remaining 5 locos with Voith type transmission. Engine to be fitted with these power packs was of 'Maybach' to MAK, type.
March'66	The type of diesel engine was changed from 'Maybach' to MAK, type.

In view of the above no action could be taken earlier to develop indigenous manufacture of Suri transmission; first because of extensive trials conducted with the two types of transmission and secondly because the engine to be standardised had not been decided upon."

2.11. During evidence the Committee were informed that the indigenous manufacturer applied to the NRDC for an exclusive licence to make Suri Transmission on 5-8-1965. This application was forwarded by NRDC to the Railways on 18-8-1965 and on 18-11-1965, the Railway Board decided not to accept the application as "at that stage the Suri Transmission was not developed and it was still under trial."

2.12. The Audit para states that in November, 1965 when the offer of the indigenous firm was rejected the Railway Board decided that for railway purposes the Suri Transmission would be developed either in Railway workshops or in the Public Sector. Asked whether Railway Board then knew which public sector undertaking was going to take up manufacture of Suri Transmission, the witness stated : "No Sir. We examined this question in 1967". In this connection, the Chairman, Railway Board stated : "It was

only in 1967 August that there was a detailed examination as to whether it could be produced at the Chittaranjan Locomotive Works or elsewhere. It was found later that they did not have the necessary equipments for doing that here."

2.13. The Committee desired to know the reason why the offer of the indigenous manufacturer made in 1965 was rejected when the Railways were getting Suri Transmission from foreign countries and also knew that it will not be possible to manufacture the same in Railway Workshops or Public Sector undertakings. To this the witness replied "....we were not sure whether the design would match the engine. As mentioned earlier, the engine with which the Suri Transmission was to work was itself giving trouble and so we changed the engine".

2.14. The Committee enquired whether any negotiations were hold with the indigenous manufacturer regarding the exclusive licence asked for by him. The witness stated "there is no record and no meeting was held. But exclusive licence we did not want". H also added, "At that time we were not in a position to do anything because the design had not been finalised.

2.15. During evidence, a representative of the National Research Developmnt Corporation explained: "Sir, there are patents for these machines. The know-how was developed by former employee of the Railways. According to the procedure that is now followed by NRDC, such processes are licensed by NRDC in consultation with the inventors of the processes. The inventors are consulted regarding the terms for the release of the processes *viz.*, premium. royalty of licences and nature of licence. The party to whom the licence is proposed to be given is decided in consultation with the inventors. This procedure was followed in this case also. NRDC has been consulting Railways at every stage for the licensing of know-how on Suri Transmission to prospective enterpreneurs."

2.16. The witness further added: "In August, 1965, when the firm wrote to us that they were interested in this, they named an exclusive licence. We sent this offer to Railways and this is the normal procedure that whenever there is an offer, we send the same to the indentors or the organisations to which they belong. On 18th November, 1965, the Railway Board wrote to us that since there were other organisations in the private sector also who may be interested in the developmnt of the Suri Transmission, we would have a Committee meeting. The Committee was formed with Mr. Chatterji of Railway Board, Mr. Baldev Singh could not meet

because Mr. Baldev Singh went abroad and the Railway Board said that they were quite busty. In the meantime we got the information from DGTD. Later after consulting the Railway Board and Mr. Suri, who was at that time the Director of the C.M.E.I., we issued the circular to all those firms who had been issued letters of intent on 1st May, 1967..... It started from the 5th August, 1965 and the negotiations and discussions continued with the Railway Board to finalise as to what would be terms on which this particular patent should be accepted from the organisation like Kirloskar Pneumatic Co., Ltd., or other organisations who had been issued the letter of intent. Ultimately N.R.D.C., and the Railway Board decided that all those parties who had been issued the letters of intent or the industrial licence should be approached so that one single party should not have the monopoly of developing this particular type of transmission."

2.17. The Committee desired to know the reasons for rejecting the second offer made by the indigenous firm in December, 1966 for manufacturing Suri Transmissions and reversing gear boxes according to the requirements of CLW and without insisting on exclusive licence. The representative of the Railway Board stated "That is because at that time the Suri Transmission was undergoing a change. This was only finalised in April, 1967".

2.18. To a question whether in rejecting the offer of the indigenous manufacturer, the Railway Board assumed that the firm will not be able to produce the Suri Transmission, the witness replied : "That was the assumption".

2.19. The Committee pointed out that the design of the Suri Transmission was finalised in April, 1967, but limited tenders were invited from the German firm in March, 1967 for supply of these. Asked about the reasons for the same, the witness replied, "In March, 1966 we had decided that we will change-over from the MYBACK to MAK engine. Then this test was going on and we got the clearance for that in 1967. The tenders had been invited because we would quote, whatever the transmission was finalised, without losing any time."

2.20. To a question as to how tenders could be invited without coming to final conclusion as to the usefulness of the equipment, the witness stated, "we have been going in for Suri Transmission from 1961 and repeatedly to different designs. In the first instance one design then second design. We have been ordering to find out how they will perform."

2.21. The Committee enquired whether in November, 1967 when an order was placed with the indigenous manufacturer their capacity was assessed. The witness stated: "Yes. We sent our officer to see what capacity they had and what equipment they had. At that time we got the design drawings from Germay. All drawings had come and there was no question of any further designing. It was then a question of making to the design which we had already received."

2.22. The Committee desired to know the amount spent in trying to manufacture Suri Transmission in Railway Workshops. The witness stated, "I do not know the exact amount of money. But I note from the record that it was intended that the assembly of this locomotive would be at Jamalpur. But later on it was found that they would not be in a position to do that because they did not have the equipment. Therefore, the job was transferred to Chittranjan which had much better machines and where the capacity would be surplus."

2.23. In a note on the same subject, the Railway Board have stated :—

"The amount spent in the CLW and Jamalpur in the development and manufacture of Suri Transmission comes to Rs. 1,14,000 approx. The break up of this amount is as under :—

	Rs.
(i) Develpoment of Jigs, fixtures	42,000 approx.
(ii) In the actual manufacture of components at CLW. .	8,000 approx.
(iii) Patterns for Suri Transmission Castings (Jamalpur Workshop)	64,000
Total:	1,14,000 Approx.

It may be mentioned in this connection that CLW are planning to take over part manufacture and assembly of the Suri Transmission. While doing so, manufacture of some components will be taken from M/s. Kirloskar Pneumatic Co. Ltd., others from manufacturers in India and remaining from import. It may be pointed out that only such of the components as are beyond the capability of the production facilities available at Chittaranjan would be obtained from outside parties. The expenditure incurred at CLW to the tune of Rs. 50,000 is of a developmental nature and will be absorbed in the development costs of Suri Transmission which is eventually planned for manufacture at CLW.

Jamalpur Railway Workshop has manufactured and supplied 7 patterns for Suri Transmission castings to CLW at a cost of Rs. 63,712.81. In this context, it may be stated that in the recent purchase order placed on M|s. Kirloskar Pneumatic Co., Suri Transmission Castings are to be supplied by CLW in partially machined condition as a free supply item.

2.24. The Committee called for information about the imports of components and spares of Suri Transmission to meet the requirements of all other organisations such as Port Trusts etc., who use diesel locomotive, since 1965. In this connection, the Railway Board have furnished the following note :

> "The first diesel shunting locomotive was produced by CLW for Indian Railways in December, 1967. It has been planned to build 203 diesel shunters by end of 4th Plan period. Out of these 60 diesel shunting locomotives have been earmarked for supply to other public sector Organisations such as Port Trusts, Steel Plants, Fertilizer Corporations etc.

So far 15 diesel shunters have been supplied to these Organisations. The details are as under :—

Sl.	Locobatch No.	No. released to other organisations		Details of imports of Suri Transmission and Reversing Gear Boxes
1	First batch-locos	Visag IOC Bhilai	—4 —1 —2	Complete sets were imported. CIF value Rs. 2·6 to 2·7 lakhs per loco set.
2	2nd batch-15 locos	Bhilai	—2	Do
3	3rd batch-18 locos	Sindri Vizag	—2 —4	Supplies obtained from M/S. KPC; and indigenous firm @Rs. 2·2 lakhs each. Certain imported components supplied to the firm as free supply items. The CIF value of these items was Rs. ·95 lakhs approx.

Supplies of Suri Transmissions and Reversing Gear Boxes for the subsequent batches are being made from M|s. K. P. C. 30 such sets were ordered on this firm by end of 1968 at the same price and for the same imported components as indicated above for the third batch. A further order for the supply of 30 more sets of Suri Transmission and Reversing Gear Boxes for the 5th batch has also been placed on this firm on 23-11-1970 @ Rs. 2.54 lakhs each, with a provision that free supply items, will continue to be supplied to the firm as in the past 2 batches; but in addition, CLW will also supply housings both for gear boxes and Suri Transmission valued at Rs. .21 lakhs as additional free supply items. The price given now to this firm is somewhat on the higher side as compared with previous 2 orders. This is attributed to increase in the labour wage structure, increase in the cost of steel, increase in overheads in the Works of M|s. K. P. C. and also for defraying part of initial capital expenditure on the first 2 orders."

2.25. During evidence the Committee drew attention of the official witness to the fact that in July, 1968 the Railway Board placed an order on the same German firm for supply of 395 items of spare parts for the second lot of 30 sets of power packs ordered on them in 1967. This order included 45 items of spare parts of Suri Transmission and reversing gear boxes which are being manufactured by the indigenous manufacturer also. Asked as to the circumstances under which these 45 spare parts were imported, inspite of fact that the General Manager, CLW had pointed out the existence of the indigenous capacity for the same. The witness stated: "These items were required for maintenance purposes for engines which were already working. Although, it is correct that the General Manager, Chittaranjan did say that it should be possible for these to be manufactured at Kirloskar, but Kirloskar by then had not manufactured these items and it was, therefore, felt that these should be obtained quickly so that the maintenance may not suffer. In any case, after the development had taken place, out of these 18 sets which we had ordered we would be in a position that complete sets as well as individual parts could be supplied."

2.26. To a question why it was preferred to import these parts rather than have them from the indigenous manufacturer, the witness replied "It was felt that as these parts were required for the maintenance purpose we could not afford to take any risks."

2.27. Asked whether any enquiry was made from the indigenous manufacturer in this regard, the witness stated, "These are items

very difficult to manufacture. Here is a firm which is trying to manufacture and we have given them an order for 18 items. We did not want to put all eggs in one basket and we bought some from abroad."

2.28. The Committee regret to note that because of the delay in the indigenous development of components for power packs used in Diesel Locomotives, the Railway Board had to import Suri Transmission and reversing gear boxes from West Germany involving large amount of foreign exchange.

2.29. The Committee further note that an indigenous manufacturer offered, first in August, 1965 and again in October, 1966 to manufacture and supply Suri transmissions and reversing gear boxes according to the requirements of the Chittaranjan Locomotive Works, but these offers were summarily rejected by the Railway Board. Asked about the reasons for rejecting these offers, it was stated in evidence that as the design had not been finalised, the offers from the indigenous manufacturer could not be considered. This does not appear to be correct because when the offer made by the indigenous manufacturer in August, 1965 was forwarded by the N.R.D.C. to the Railway Board, no such reason was given for the rejection of this offer. Instead the Railway Board had decided that the manufacture of Suri transmission etc., should be done in some Railway Workshop or some Public Undertaking. At the same time the N.R.D.C. was directed to approach other indigenous manufacturer in view of the exclusive licence asked for by M/s.....Again in October, 1966, when the offer of the indigenous manufacturer was renewed the General Manager (CLW) testified that the Suri Transmissions, as per CLW's requirements, could be produced by the indigenous firm. But still the Railway Board did not agree to accept this offer, even though the firm had by then given up the plea of exclusive licence. In the meantime, a decision had already been taken in March, 1966 to make a change over from 'MYBACK' to 'MAK' type of diesel engine and the design of the Suri Transmission was thus settled.

2.30. The Committee are constrained to observe that no proper assessment of the indigenous capacity was made by the Railway Board either in 1965 when the first order of 32 sets of Suri Transmissions was placed or in 1967 when the second order of 15 sets was placed with the German firm. The Committee feel that if the offer of the indigenous firm had been accepted in November, 1965 or at least in October, 1966 the import of the second lot of 15 sets of Suri Transmission etc., from Germany for which order was placed in

November, 1967 could have been avoided. The indigenous firm on whom an order for 18 sets of Suri Transmission etc., was placed in November, 1967 have demonstrated their ability to produce the Suri Transmission by actual performance.

2.31. It is also seen that in 1968, 45 spare parts of Suri Transmission and reversing gear boxes were imported even though indigenous capacity existed for the manufacture of these parts. Here again even a formal enquiry was not made from the indigenous manufacturers as to whether they could supply these parts.

2.32. From the facts as mentioned above the Committee are led to the conclusion that no serious effort was made by the Railway Board to explore the possibility of developing manufacturing capacity for Suri Transmission etc. indigenously. The capacility of the indigenous manufacturer does not appear to have been gone into earnestly even though their terms and conditions were favourable in so far as the cost element was concerned. DGTD does not appear to have been consulted at any stage. There is nothing to show whether the requisite clearance was obtained from them before ordering imports of Suri Transmission and their spare parts.

2.33. The Committee cannot but resist the conclusion that the Railway Board for reason best known to them were more interested in importing power packs used in Diesel engines than in indigenous development of Suri transmission. This indifferent attitude of the Railway Board has cost the country considerable foreign exchange and extra expenditure which worked out to Rs. 27.2 lakhs and Rs. 1.86 lakhs respectively in respect of the second lot of 15 sets imported.

Failure of equalising beams on Metre Gauge I.R.S. Coaches

Audit Paragraph

2.34. A number of failures of equalising beams on the metre gauge I.R.S. coaches occurred during 1964 to 1968 on the North Eastern and Northeast Frontier Railways resulting in derailment of coaches in some cases. Investigations into the causes of such failures in 1700 and 1800 series of coaches manufactured by an indigenous firm against 1963-64 Rolling Stock Programme revealed that they were due to the class of steel used and manufacturing defects like forging laps, dimensional inaccuracies and deviations from the approved drawings in the manufacture of the beams. The inspecting authority of the Directorate General of Supplies and Disposals who inspected and approved the equalising beams at the makers' works failed to detect these defects.

2.34. It was noticed that the problem of equalising beam failure was not confined only to the 1700 and 1800 series of metre gauge I.R.S. coaches and the Railway Board issued instructions in March, 1968 to the North Eastern and Northeast Frontier Railways to take immediate action for programmed renewal of all the defective beams. On the Northeast Frontier Railway all the metre gauge I.R.S. coaches of 1700/1800 series were withdrawn from fast main line service and were subjected to intensive examination. It was observed that the equalising beams on all the 117 coaches supplied by the firm during February, 1966 to June, 1967 were defective and so, the Northeast Frontier Railway Administration had undertaken replacement of all the 468 equalising beams of these coaches. New equalising beams required for replacement have been procured from the Jamalpur and Kancharapara Workshops of the Eastern Railway and the Chittaranjan Locomotive Works at a cost of about Rs. 3.51 lakhs excluding freight, incidentals and labour charges. The Northern Frontier Railway Administration and the Railway Board advised the firm in May and November, 1968 that the cost of replacement of all the beams should be borne by then, but no formal claim indicating the exact amount reimbursable to the Railway was preferred. The firm has not so far agreed to bear the cost of replacements on the ground that the failures in question were attributable to inadequacy of design and their liability was confined to defective materials or workmanship noticed within the warranty period (12 months) only.

2.36. On the North Eastern Railway rigid tests with magnaflux crack detectors revealed that out of about 6,000 equalising beams fitted on about 1500 passenger coaching vehicles, about 80 per cent *i.e.*, 4800 numbers were defective and would require replacement. It has been decided to undertake replacement of the defective equalising beams on a phased programme for which 195 new equalising beams had been procured from trade and other Railway Workshops at a cost of Rs. 2.82 lakhs. For programmed replacement of all defective equalising beams, the Railway had placed orders for 2036 beams (including 195 already procured) on trade and Railway Workshops. Meanwhile, about 2,000 defective beams have been repaired by welding. In view of this, the order on Chittaranjan Locomotive Works for equalising beams had been curtailed by 1032 numbers. The North Eastern Railway Administration will have to incur about Rs. 10.41 lakhs for procuring 1004 equalising beams (including Rs. 2.82 lakhs for 195 already procured) for replacement of defective equalising beams. The cost of welding the beams with minor defects could not be ascertained. The North Eastern Railway Administration is not in a position to identify the manufacturers of the defective equalising beams with a view to prefer claims with the suppliers, because the equalis-

ing, beams, which did not bear the stamps or name of the manufacturers or the number of the coach and other relevant particulars, were pooled together when coaches came into the workshops for P.O.H. No clair has, therefore, been preferred with any of the manufacturers who supplied the coaches or underframes with the defective equalising beams.

2.37. On the Western Railway, 22 equalising beams were found defective and had been replaced. The cases of breakages had been reported to the manufacturers for replacement. The firm has not accepted the claim so far.

2.38. The Ministry of Railways (Railway Board) explained (January, 1970) that the heavy incidence of equalising beam failures on the North Eastern and Northeast Frontier Railways was due to excessive overcrowding on the coaches and that the drawing was altered in 1968 for strengthening the beam further to bear additional load. The Ministry further explained (January, 1970) that claims in respect of failures which occurred after the expiry of warranty period would not be in order.

[Paragraph No. 12.—Andit Report (Railways), 1970].

2.39. The Committee enquired whether any investigation was made to find out the real causes for the failure of equalising beams which resulted in several derailments. The Committee were informed that each case of derailment was examined and it was found that the equalising beams had broken or cracked. The remedial measures were taken to rectify the defects and the design was changed to make them stronger.

2.40. The Committee desired to know whether the steel used in the beams was defective. The representative of the Railway Board stated; "These are highly stressed parts of a bogie; the cracks appear if there are some manufacturing defects or if the radius is not properly provided."

2.41. Asked whether the defect in design was the main cause for failure, the representative of the Railway Board stated that 'in the first instance, it was the defect of manufacture. There were certain lapses and certain forging defects. And certain radii were not correctly formed."

2.42. The Committee were informed that in 1964 there were two cases and in 1965, 5 cases of failures of equalising beams. The Committee enquired what action was taken when the defects in equalising

beams were first noticed. The representative of the Railway Board explained: "When an individual part of a coach fails, that part is taken off, it is examined and we find out what exactly is wrong with it. We give that particular portion a check—whether it was a manufacturing defect or some other defect—and at that time we found that in the radii there were certain laminations. That was the first failure that occured."

2.43. The witness added that "when we have an instance of breakage of these parts in large numbers, then we change the design. But when there are only one or two cases, then we do not change it.....In individual cases, whenever a failure occurs, we find out the defect and if it is a local defect, we change the part. That is all."

2.44. The Committee desired to know whether any exhaustive study was made when the defect first came to notice. The witness replied: "We did. We examined that particular part, but we did not consider it a type defect or a design defect."

2.45. The Committee pointed out that when defects were noticed some remedial measures could have been taken to avoid the epidemic. The representative of the Railway Board stated: "We have been watching this particular item since 1958 and certain changes have been made so that in case they break, they do not fall on the ground. Even with regard to chains, we found that the type of chain that we used was not satisfactory. We, therefore, provided a strap so that it does not fall back and there is no derailmsnt thereby. This is a continuous process that is being carried on. There is a Standing Wagons Committee where all these things are brought to their notice."

2.46. The Audit have informed the Committee as under:

> "The weakness in the equalising beam, is, however, not a recent phenomenon, even though the existence of cracks, etc. in such beams in the large majority of such coaches especially in North Eastern and Northeast Frontier Railways was detected only after the intensive investigations following the failures on Northeast Frontier Railway in 1967. The failures of equalising beams formed the subject matter of discussion in the 38th and 40th meetings of the carriage and wagons Standards Committe e(*i.e.* from as early as 1958) who recommended modifications in the design of the beam and specification of steel to be used. The Research Designs and Standard Organisation of the Ministry of Railways, however, decided in February, 1964 that the existing

design was adequate and did not require any modification. At the same time, the Research Designs and Standards Organisation directed the Railways that factors which might give rise to stress concentration should be avoided so as to minimise the risk of failure.

The Railways were asked to examine all existing beams to eliminate those having manufacturing defects|cracks, etc., and to take special care regarding the beams during P.O.H. Any welding of any part of the beams was also cautioned against. The failures in epidemic form that came to light in 1967 and 1968 related to coaches, that seem to have been manufactured according to the earlier design. Subsequently, however, the specifications for steel and the physical dimensions were changed (December, 1966 and August, 1968 respectively)."

2.47. The Committee enquired whether any change or modification was recommended by the Carriage and Wagons Standards Committee or RDSO. The official witness stated: "What was recommended by them was to check and see whether the design by using the strain gauge—a type of instrument used in the train—was all right. The R.D.S.O. allowed this beam to be fully loaded with the strain gauge and so on. They were found to be within the elastic limits. Later on, it was found that inspite of the design being all right and the value obtained being all right, there was still some defect. As a measure of abundent precaution it was overdesigned. Now the present beam is all right with .5" radius instead of 3/4" radius."

2.48. The Committee were informed in the course of evidence that strain gauge testing was done in 1964. Explaining the features of the test, the witness stated: "They have a formula of taking hundred per cent above normal load. If we take the load in a coach, the design is for a normal 100 per cent traffic. Normally the coach is for 100 per cent over load. It may not be more than 100 per cent. But the DRSO still feels that the beam manufactured has not failed from the point of view of weak designs. But as it continues to fail, they have changed the design in order to make it heavier and more expensive by using more metals but safer".

2.49. The Committee were informed during evidence that the order for purchase of equalising beams was placed on M|s.....by the Railways but the parts were inspected by the DGS&D inspectors according to the prevailing practice in this regard. As regards the

rationale of this procedure the witness stated: "It is a legacy of the past. This is a system that is going on".

2.50. During evidence, a representative of the DGS&D deposed: "Briefly, the order was placed by the Railway Board as per their own drawings and designs and the general practice is that such orders are sent to me for inspection. These were inspected in Calcutta by our inspectors who are fully qualified. According to the terms of the contract, and designs and other technical data furnished to us, the Inspectors have carried out the inspection exactly in accordance with the requirement of the stores ordered at that time. Now, it is difficult to see from the Para as to whether each and every component that failed was really inspected by my inspectors because there is the case of several failures. My Inspectors said that some of the items did not really belong to them probably they were manufactured at Railway Workshops. But the fact remained that at the time of inspection, the inspectors did carry out all that was required of them in accordance with the terms of the contract, the designs and technical data that are furnished to them. This is the first time that it has come to our notice that some of the beams failed in service. Now, there is also evidence to show that certain improvements and modifications have been subsequently carried on these designs by the Railways and it is also possible that the coaches were over-crowded, and loaded beyond the permissible limits. I cannot explain that, but can only say that my Inspectors carried out the inspection exactly in accordance with the terms of the contract, the designs and data that were furnished to us then".

2.51. The witness further added", It is a matter of deep concern for every one of us. But what happens is, at the time of inspection, they may reveal nothing. It is quite possible that cracking took place after a certain period due to the defective designing and I cannot vouch-safe for anything for that. It is quite likely that things passing out as absolutely fit, may over a period of years develop cracks, on which I cannot say anything. But one learns a lesson out of that, and keeps on modifying the designs and this is what the Railways have done since then."

2.52. The Committee desired to know whether any modifications have ben made in the design. The representative of the DGS&D informed the Committee as under:

> ".....There have been a lot of changes. But the specifications and drawings are given by the Railway and we only carry out tests and inspection in accordance with the terms of these specifications as provided in the contract by them....

I have the list of changes before me. In November, 1966 the material specifications were changed and the drawings were modified. *Vide* alteration V, four changes were made. The drawing was modified to increase the section at the Swan Neck region and the material specification altered from IRS Class II to ISS Class II etc. Then came another alteration in 1967 shifting the radius at the bottom of the swan neck to increase the section further."

253. The Chairman, Railway Board thereupon stated: "These are all details of the method of manufacture and the type of specification required to be followed. This change in radius gives a slightly bigger section. We have also laid down more details, like "this should be done like this and this should be done like that" etc., but there is no doubt that in this particular item in which the original design was measured with strain gauges it was found to conform to the exact requirements of the road etc. As a measure of abundant precaution, it is being slightly overdesigned now. The manufacturers' initials have also now been added since August, 1968."

2.54. The Committee enquired whether the inspection by DGS&D covered the manufacturing process. To this the representative of the DGS&D replied: "That starts from the raw materials actually. As soon as the raw materials are received in the workshop, Inspectors conduct the tests and check certificates to find out whether the steels etc. are in accordance with the requirements of the contract. And when the store is being manufactured at every process from one process to the next my inspectors are there and they conduct the test to the very very accurate level. In fact, we have been inspecting the Railway store worth Rs. 60 crores per year and to their satisfaction."

2.55. The witness also stated: "There are some things which can be seen straightaway but there are some others which develop later on, which we as Inspectors have no control. Suppose, for instance, we are asked to provide class II steel and if class II steel itself is not found good enough for the purpose later on in actual practice, they may give up that class. I cannot say anything on that as an Inspector because that is not my job....The R.D.S.O. is there. He is every time examining the designs of the stores the Railway Board is purchasing. Every day he is carrying out day-in and day-out process of checking of one or the other store."

2.56. To a question whether the defect were located during the warranty period, the representative of the Railway Board replied: "These equalising beams are at a position where normally you can

not see them—they are under the coach inside the bogies. Unless there is some trouble you do not take out these things and examine them. And since they were manufactured and inspected and passed by the manufacturers and the inspectors of DGS&D, they did not re-examine every time. Every part cannot be examined. The examination was only when the defects came to notice. Unfortunately, by that time, the warranty period was over."

2.57. As regards the conditions of warranty, the witness stated: "If you find a defect and report is made within a specified period, they are supposed to replace the parts at their own cost". The Committee was also informed that the claim had been preferred against the firm and the matter was under negotiation.

2.58. The Committee enquired why did the Railway Administration not devise means of identifying the makers of the equalising beams with a view to claiming free replacements for the defetive ones. The witness stated: "As mentioned earlier these highly stressed forged parts are normally not marked because if you mark them, at that point it becomes weaker. But because we have had this trouble we have started making them in spite of the fact that we do not consider it a good practice. In casting, it is easy to do so and we provide marking in casting. But in a forge item if you drive something in, then the fibres of the metal are deflected and therefore they give way. So the only thing to do is to emboss it but even embossing a highly stressed part is not a good practice."

2.59. The Chairman, Railway Board, informed the Committee that the guarantee period was 12 months in those days and within 12 months this type of defects will not show. Therefore the guarantee period had now been changed to 24 months. The Committee pointed out that in case manufacturing defects could be proved, there should be no limitation on the guarantee period. To this the Chairman, Railway Board replied: "What I was going to submit is that for this type of guarantee, if we start increasing the number of years, I think the firms will either not accept such an order or they will quote very much higher prices to cover this contingency. But what I was going to say is that these coaches are potted within about nine months to about one year six months. Therefore, the warranty should be limited to within that period ,because after the coach has been handled by the Railwaymen you cannot go on holding the manufacturers responsible and say that there is something wrong in the manufacture. That is why it was only 12 months previously and now we have gone up to 24 months to get a bigger guarantee period."

2.60. Referring to the explanation given to Audit regarding the heavy incidence of failures of equalising beams on the N.E. and N.F. Railways due to over-crowding, the Chairman, Railway Board stated: "Sir, it is clear that this is a special thing. Now this is a part which is a little bit longer than my hand and secondly the inspection is visual. They take one beam and check with a template. There is a certain template over which they go on fitting these beams, and one out of the many thousand beams probably that needed an intricate examination was not done. But in this particular case, apparently, due to this little flaw in its manufacturing process, the stress has been aggravated. But it is also a fact which was given to the Railway Board because these cracks have been found in the coaches which are mostly run in the North East and North-east Frontier Railways. This is due to the fact that these coaches are very heavily overloaded in this area. In fact, roof riding is also there. I mean these coaches are in the other Railways that these things have not been found there but in the North East And North-east Frontier Railways, it occurred in a sort of an epidemic form. So I am inclined to think that overloading in NE and NF Railways has not been kept under check. But it won't be correct to say that there were no manufacturing defects, There were".

2.61. The Committee pointed out that if the overcrowding was the cause of failure of beams, how could the supplier firm he asked to bear responsibility for their failure. The witness stated: "The two things are entirely different. When you say that the thing is defective in manufacture and the Committee too finds that these items are defective, then we examine whether the design is all right or not. As far as Jessop is concerned, they are responsible for producing the things according to specifications."

2.62. In reply to another question the witness stated that the failure of the beams was partly due to defects in the beams and partly it could be due to over-crowding in trains.

2.63. The Committee enquired whether welding was a permanent measure or a short term expedient The witness stated: "As I said, we have welded quite a number and only about 12 of these have shown slight deterioration. That means that by and large this welding process is a successful method. But normally we do not weld them....but we have found that under controlled conditions this is a method which is both safe and satisfactory."

2.64. Asked if the repairs by welding were adequate why could the NE Railway not resort to this earlier before placing a bulk order for mass replacement of equalising beams, the witness replied: "At

that time we were not sure that this welding will work. We did not want to take any chance. We subsequently cancelled an order for 1400 beams when we found that the repairs were satisfactory."

2.65. The Committee are unhappy to note that the equalising beams on all the 117 coaches supplied by the firm were found defective and had to be replaced by the Northeast Frontier Railway at a cost of more than Rs. 3.51 lakhs. It has been stated that investigations into the causes of failures of these beams have revealed that they were due to the different class of steel used and manufacturing defects in the manufacture of the beams. The Committee were also informed during evidence that a claim had been preferred against the firm for reimbursement of cost of replacement of the defective beams although no settlement had yet been reached. The Committee desire that the Railway Board should actively pursue the matter with the suppliers and apprise them about the outcome.

2.66. The Committee further note that in the case of North Eastern Railway, where 80 per cent of the beams failed, the Administration is not in a position to identify the manufacturers and are therefore unable to prefer any claim for replacement. The Committee feel that such a contingency should have been foreseen by the Railways. In any case, the Committee hope that they will profit by this experience and will take suitable measures to safeguard their interests in the future.

2.67. According to the Audit para the cases of breakages of beams on the Western Railway have been reported to the manufacturers for replacement. The Committee would like the Railway Board to take follow-up action on their claim against the manufacturers.

2.68. The Committee view with concern the derailment of coaches resulting from the failure of equalising beams as also the breakages of beams due to overcrowding on trains. These problems need to be looked into carefully. It was stated during evidence that certain modifications have been made in the design of the beams particularly in the swan neck section, to make it stronger. The Committee desire that the Railway Board should review in detail how the failure occurred in this vital section of the beam and take suitable remedial measures to safeguard against the recurrence of such defects.

Avoidable import of train lighting cells

Audit Paragraph

2.69. In November, 1967, the Ministry of Railways (Railway Board) placed an order on a West German firm for the import of

23,000 numbers of lead-acid train lighting cells of 312 A.H. capacity (substitute for 300 A.H. capacity cells) involving foreign exchange expenditure of about Rs. 38.47 lakhs. It may be mentioned that throughout the Third Plan period no imports of batteries required for coaches were made nor have such imports been made after the import of the 23,000 cells referred to above was arranged. While deciding upon the import, the Ministry assessed the requirement of train lighting cells for the period August, 1967 to July, 1968 at 1,83,000 as against the available indigenous capacity of 96,000 cells per annum. The above assessment of the requirement was made taking into account the current year's demands and the outstanding indents of the previous years which were not covered by the running contracts of the Director General, Supplies and Disposals and in anticipation that the indigenous manufacturers even with the additional capacity that was being created, would not be able to supply more than 1,22,000 cells by July, 1968 although the three leading indigenous manufacturers of train lighting cells had already been granted licences for importing capital goods worth Rs. 22.5 lakhs for augmenting their capacity from 96,000 cells to 1,68,000 cells per annum. The Ministry further justified the import on the basis that the yearly requirement of train lighting cells would be of the order of 1,50,000 in view of the increased holdings of the coaching stock and that in view of this, there would be continuing gap between requirements and availability. Against the tender, one of the indigenous manufacturers offered to supply 2,000 cells per month over and above the promised supply against the running contracts of the Director General, Supplies and Disposals. Still the Ministry considered that there would remain a large gap between the demand and indigenous supplies an persisted in their decision to import 23,000 Nos. of train lighting cells. The prescribed procedure of obtaining clearance from the Director General of Technical Development from the point of view indigenous availability before arranging import was also not followed. The Ministry explained (January, 1970) that this was not considered necessary as the Joint Director (Development) Railway Board, who acted as an ex-officio Industrial Adviser to the Director General of Technical Development was fully aware of the position of indigenous availability.

2.70. The cells ordered for import were received during the period from April to August, 1968. Out of 23,000 only 16,570 cells were used by the Railways upto March, 1969. Further as a result of stepping up of indigenous manufacture and replatal of old cells, the indigenous availability of train lighting cells increased to 1,11,501 during 1968 and 58,691 during the first five months of 1969. The stock

of 300 A.H. cells (including 312 A.H.) with all the Railways after meeting their day-to-day requirements had increased from 5926 in January, 1968, to 11,024 in June, 1968, 19,889 in November, 1968, 31,004 in January, 1969 and 24,288 in May, 1969. Thus the plea of urgency, with which the train lighting cells were imported as a cost of Rs. 38.47 lakhs in foreign exchange, is not substantiated.

2.71. The Ministry of Railways (Railway Board) explained in December, 1969, that the import was justified by the large gap between the indents and indigenous availability, but the surplus was due to the delay in the commissioning of cells because of delayed supplies of other materials like electrolyte, connectors, acid etc., and the parallel action taken by the Railways for replatal and placing of orders for supply of cells with imported containers. It may be mentioned that it has been possible to make available 20,147 cells by replatal in one year and the indigenous supplies also had increased from 65,624 in 1967 to 91,354 in 1968. The import could have been avoided if the increasing indigenous capacity and the potentialities of replatal were taken into account.

[Paragraph No. 13—Audit Report (Railways), 1970].

2.72. The Committee desired to know the reasons which weighed with the Railways for placing the order for import of T.L. cells. The representative of the Railway Board stated during evidence: "We wanted to import 23,000 cells because the supplies during the past years had been much less than what we required. The position became so seriou- that most of the coaches were turned out with half the number of cells. We use 24 cells per coach, but because of short supplies in previous years we reduced the number and we are using only 12 and that meant some lights had to be reduced. The lighting was affected and fans would not work properly and, there were a large number of complaints about the lighting not being satisfactory an so on. So, the Railway Board felt that it was necessary, if adequate supplies could not be obtained indigenously to import them. We were told that the requirement would be of the order of 1,50,000 but due to various factors the indigenous capacity could not be developed and there was no option but to go in for import of 23,000 cells. It was in fact, less than the shortage between our requirements and the indigenous capacity available at that time."

2.73. The Committee pointed out that during the whole of the Third Five Year Plan there was no import of T.L. cells and enquired how could a sudden demand for import arise in 1967. To this the representative of the Railway Board replied: "There has to be a first time for anything."

2.74. Explaining the basis on which the figure for importing 23,000 cells had been arrived at, the representative of the Railway Board stated during evidence: "When we ordered, we were expecting that our battery manufacturers could supply us a total of 1,22,000 numbers. That was the maximum that they could give. I am here talking about the period to which the Audit para refers namely from July, 1967 to July, 1968—13 months. During this period we were expecting total supplies of 1,22,000 cells 52,000 batteries from Associated Batteries, 34,000 from Amco, and 36,000 from Standard Batteries making a total of 1,22,000 batteries. We had allowed for replatal from where we could get 13,000 more batteries. This would give us a total of 1,35,000 against our requirements of 1,83,000 batteries. About 48,000 were left as a gap against which we imported only 23,000 batteries."

2.75. Asked as to how the requirements of 1,83,000 T.L. cells for 1967-68 (August to July) was assessed the Railway Board have in a written note stated:

> "The figure of 1,83,000 train lighting cells was the actual requirement of Railways for which indents were already placed on DGS&D by about September, 66 and were pending coverage for supply during August, 1967—July 1968."

2.76. In another note, the Railway Board have stated:—

> "It may perhaps be realised that the assessment of the production capacity need not necessarily be identical to a particular year's procurement programme....The procurement programme for any year is governed in addition by:—
>
> (i) availability of stocks from the previous year's orders;
>
> (ii) throw forward of supplies from various year's orders;
>
> (iii) inability of the DGS&D to sometimes cover all the indents when there is a heavy backlog;
>
> (iv) availability of funds.

The position of outstanding indents and coverage by orders

on indigenous suppliers for the calender year 1968 onwards was as follows:—

Period	Outstanding indents	Covered by orders
1963 (for a 12 months period)	2,05,701 Nos. (As on 31-12-1967)	1,23,639 Nos. (exclusive of 23,000 cells by import).
1969 (for a 12 months period)	1,85,880 Nos. (as on 31-12-1968)	1,56,254 Nos.
1970 (for a* 20 months period from Aug.'70 to April'72)	3,04,328 Nos. (As on 31-7-1970)**	2,65,275 Nos. (i.e. 1,59,165 for a 12 months period).

NOTES :—*(a) In ad-hoc period of 20 months was adopted by DGS&D for 1970 indents.

**(b) Due to sudden spurt in the antimony price and the prolonged negotiations, the ordering was delayed by 7 months.

Supplies, however, were continued against outstanding orders. It would thus be observed that the Railway Board's assessment and the annual requirements from 1968 onwards was of the order of 1,50,000 cells."

2.77. Audit have however pointed out that "Before deciding upon import the Board adopted an unusual method of assessment of the requirements of train lighting cells. Procurement of further supplies for stock is usually base upon the past consumption, stock in hand, outstanding orders and the indigenous capacity (existing and developed one). In this case the Railway Board followed a different method by which the quantity to be imported was arrived at by taking into account the outstanding indents of the previous years which were not covered by the running contracts and the current year's indents and the anticipated indigenous production. While adding up the previous outstanding indents an current indents to arrive at the requirements, the Railway Board had not compared it with the past consumption to see how far their assessment was realistic, though this could well have been done by reference to Railways. The requirement of train lighting cells for 1967-68 (August, 1967 to July, 1968) thus assessed by the Railway Board was 1,82,000. All that the Board did was to check the reasonableness of the dimension of needs so arrived at by dividing the total number of coaches equipped with batteries by the life of batteries which was assessed at 4 or 5 years."

2.78. According to Audit just after placing the orders for imports, the requirement of cells by all the Railways for the year 1968 (January to December) was worked out only at 1,13,000. Asked how

could the requirements fell to steeply within such a short time, if the Railway Boards' earlier assessment was correct, the Railway Board have stated in a written note. "The decision to import was taken after assessing the requirements and possible supplier for the period July, 1967 to July, 1968. As such reference to another period *viz.*, January, 1968—December, 1968 does not appear to be relevant."

2.79. Asked to give the figures of actual consumption of T.L. cells during the period from 1962-63 to 1966-67, the Railway Board stated in a note:—

> "Information is not readily available. However, it may be stated that whatever cells were supplied were consumed as would be evident from the stock holding on 31-2-67."

2.80. According to the information given to the Committee, the total stock of train lighting cells with all the Railways and production units as on 31-7-67 was about 7000 cells. The stock of cells with all the Railways after meeting their day to day requirement in the subsequent years is as indicated below:

January, 1968	5,925
June, 1968	11,024
November, 1968	19,889
January, 1969	31,004
May, 1969	24,288

2.81. The Committee enquired what the reasons were for delay in the commissioning of the imported cells. The Committee were informed: "There we ran into some difficulty. When we received the batteries, we found that on some Railways, particularly on the Northern Railway, there was a shortage of electrolyte and acid. Acid, you know, Sir, is carried in jars. Unfortunately at that time there was a shortage of these jars and there was some delay in putting the cells into use on the Northern Railways. I accept that there was a delay."

2.82. In reply to a question whether it was not possible to ensure that there was no shortage of materials which would be required for the full utilisation of the cells, the witness replied:

> "There was no general shortage of acids as such. We had informed the Railways that the cells were coming. As

and when they arrive, the Railways should be in a position to use them. Of course the shortage was only for a short period. For a few months these cells were not utilised. But afterwards they were utilised."

2.83. As regards the offer by a private manufacturer of supply of 2,000 cells per month over and above the promised supply against the running contracts, the representative of the Railway Board stated: "When this firm gave the offer of 2,000 they were thinking of doing so with imported containers and their price was £ 14.7.7 as against the imported price of £ 8.7.1—out of the £ 14.7.7., £ 4,11.5 was the exchange element. That is why we were not very keen for this very much more expensive item from this firm."

Indigenous capacity

2.84. The Committee understand that there are three leading manufacturers of train lighting cells in India. Their licensed capacity was 90,000 and the maximum production capacity was 96,000 cells per annum. According to the information furnished by the Railway Board, the three firms were given import licence/letter of intent to expand their production capacity to 1,68,000 cells per annum on the dates given below:

Name of the firm	Date of licence/letter of intent
M/S. Standard Batteries	30-9-1967 (Import licence)
M/S. Amco Batteries	5-4-1968 (Letter of intent)
M/S. A.B.M.	30-3-1968 (Letter of intent)

2.85. From the information furnished by the Ministry, it is seen that the total quantities of T.I. Cells ordered on the indigenous manufacturers and supplied by them during 1962-63 to 1966-67 are as under:

	Ordered	Supplied
1962-63	57,887	Figures not available
1963-64	77,000	63,202

	ordered	supplied
1964-65	46,750	44,392
1965-66	70,000	55,932
1966-67	Figures not available.	65,702

As on 31-3-1967, the total outstanding orders with the indigenous manufacturers were stated to be about 83,749 cells.

2.86. During the period from July, 1967 to July, 1968, Railways expected that the private manufacturers would be able to supply 1,22,000 cells. The Committee were informed that during this period the actual materialisation was 86,520 cells only. An official witness stated during evidence. "There is reason for that. They have been experiencing a lot of difficulties in getting antimony and lead. In fact, even today, there is an acute shortage of antimony in the country. As a result although we have got a capacity for making 1,22,000 batteries the supplies that we are getting has come down."

2.87. A representative of the Ministry of Industrial Development and Internal Trade (DGTD) stated during evidence:

> "There were several meetings regarding the shortage and availability between the DGSD and DGTD. It was thought that the demand of the Railways was very small earlier as compared to the demands that was put forward for the year 1967-68. Before 1963, there was a demand of the order of 65,125 while it went up in 1968. There was some difficulty in increasing the production because the train lighting cells needed big containers. That much manufacturing capacity was not there. We therefore sanctioned the additional equipment which was not supplied for earlier. The promise made by the indigenous manufacturers was that certain additional plant would be forthcoming by a certain date. That was part of the reason why there was a delay in regard to meeting the demand. I must say that on the basis of the demands put forward by the Railways there was not sufficient production which could be forthcoming from the indigenous manufacturers."

2.88. The Committee enquired why there was a sudden higher demand for T.L. cells and whether it was not possible to take action to ask the indigenous manufacturers to step up their production according to the expected demand. A representative of the Railway Board stated: "The forecast of the increased demand by the Railways was not given to the DGTD early enough. Once we heard it we took steps to get licences etc." Giving the reasons for this delayed action, the Railway Board have stated in a written note, as under:

> "The forecast for increasing the indigenous production capacity of T.L. Cells was given to DGTD in January 1967. Concurrently, the manufacturers were directly approached to indicate their proposals for increasing their manufacturing capacity.
>
> By late 1965, due to foreign Exchange difficulties, increased defence requirements and shortage of raw materials etc., the manufacturers were able to meet only about 60 per cent of the Railway's requirements. An all India review indicated that due to increasing number of equipped coaches, thefts and the necessity of the provision of batteries in unequipped coaches, etc., increasing the manufacturing capacity was inescapable.
>
> After this assessment, the increased requirement including the earlier shortfalls was discussed with the manufacturers and DGS &D in December, 1966. The firm requirement of the Railways was formally confirmed to DGS & D immediately thereafter. This was followed up with direct requests to the firms to furnish proposals for increasing their capacity; simultaneously, the DGTD were also advised of the Railways' increased requirements.
>
> It may be noted that efforts were also made (in consultation with DGTD) to tap other licensed battery manufacturers. They were, however, not manufacturing train lighting cals."

2.89. In another note the Railway Board have stated:

> "The supply position of batteries became acute by late 1965 due to the following:—
>
> (i) Unprecedented increase in defence requirements,
>
> (ii) Increase in the number of equipped coaches,.

(iii) Provision of batteries in unequipped coaches,

(iv) Acute shortage of foreign exchange and raw materials,

(v) Increased theft of cells, and

(vi) Added stress on proper maintenance of T.L. by proper manufacturers. This was further accentuated by the failure of supplies from manufacturers.

With special efforts of the Railway Board and DGS & D, *ad hoc* foreign exchange for the import of raw materials was released to the manufacturers by DGTD in March, 1966. Notwithstanding this assistance in 1966 and 1967 the three manufacturers failed to come up to their licensed capacity. This shortfall in indigenous production, however, contributed in a none too insignificant manner to the acute position of supply of cells in the last quarter of 1967 when import of 23,000 cells had to be resorted. The shortfall of T.L. Cells was, therefore, not due to inadequate licenced capacity."

2.90. Regarding the production of the indigenous manufacturers, a representative of the Railway Board stated in evidence: "Even today my suspicion is we will not be able to meet our requirements because the trade is having difficulty. In 1967 because of the trouble on the Border they had lot of difficulty about lead and now I am told there will be difficulty about antimony."

2.91. The Audit para states that the prescribed procedure of obtaining clearance from the DGTD from the point of view of indigenous availability before arranging import was not followed. Asked why such clearance was not obtained, a witness stated: "The case was at that time sent to the Joint Director who worked as an *ex-officio* Development Officer. And at that time the procedure was that he certified such cases on behalf of the other Ministry. In this particular case, we had written to them also that this was what we were doing."

2.92. During the course of evidence a representative of the DGTD stated: "In the ordinary course the DGTD's clearance is necessary. He is the responsible authority..... We have a Directorate in the DGTD which deals with batteries. It would have been proper to get the clearance from them."

2.93. The Committee pointed out that the procedure adopted by Railways had been objected to by the DGTD and that it was necessary to take the clearance so that responsibility could be fixed.

To this the representative of the Railway Board replied: "I accept that. At that time that was the procedure we were following. One of the officers was supposed to be with him working as a Development Officer. He knew the procedure. And he knew the position obtaining them. He used to write letters. I shall give you the dates of the letters. The order was placed in November and we wrote to the DGTD in August saying that we are placing this order. I agree we did not take the permission."

2.94. The Committee regret to observe that no realistic assessment of the requirements of train lighting cells was made by the Railway Board before ordering import of 23,000 cells on an urgency basis which involved foreign exchange expenditure of about Rs. 38.47 lakhs. Instead of working out their requirements on the usual basis of past consumption, stock in hand and indigenous capacity, the Railway Board adopted a rough and ready method by taking note of the outstanding indents of the previous years which were not covered by the running contracts and the current year's indents. The figure so arrived at was compared with a rough assessment of the indigenous capacity available. They had not checked up the actual consumption of these cells in the immediate past from the Railways. The Committee note that all cells imported on an urgency basis could not be put to use because of delayed supplies in some case of other ancillary materials like electrolyte, connectors and acid, etc. The Railways were carrying a stock of the order of 24,288 cells in May, 1969.

2.95. The Committee also observe that the prescribed procedure of obtaining clearance from the DGTD from the point of view of indigenous availability before arranging import was also not followed.

2.96. The Committee in para 3.90 of their 116th Report (Fourth Lok Sabha) had recommended that the Railway Board should study all cases of imports in detail and evolve an appropriate procedure to ensure that proposals for import are not cleared except after a searching scrutiny to meet compelling needs. The Committee are informed that an office order detailing the procedure to be followed in such cases has already been issued for the guidance of officers and staff. The Committee trust that the revised procedure would ensure that imports are not made unless it is patently clear that the requirements cannot be met from indigenous sources.

Central Railway—Injudicious purchase of M.S. Hex Nuts resulting in overstock

Audit Paragraph

2.97. In order to curb the excessive incidence of thefts of brake blocks and screwing nuts, the 38th Carriage and Wagon standard

Committee, 1959, recommended the adoption of the revised method of securing brake blocks to the brake beams of coaching and goods rolling stock by means of a split cotter, thereby eliminating the use of M.S. Hex Nuts 1½". This revised method of securing brake blocks, as approved by the Railway Board, was circulated by the Railway Administration in April, 1960 and again in November, 1961 to all concerned stating that the existing stock of brake blocks and brake beams with screwed ends should be worked off before adopting the modified device and that the I.R.S. brake beams with screwed ends should not thereafter be manufactured or purchased.

2.98. **With the assumption of common cariers' liablity in January,** 1962, the Railway Administration asked the divisions in April, 1962 to revise the imprest of essential Carriage and Wagon items with a view to keep the stock in a very fit condition. The sanctioned imprest of M.S. Hex Nuts 1½" was thereupon raised from 56.9 tonnes in 1961 to 196 tonnes in April/May, 1962 and 206.5 tonnes in August/September, 1962, without keeping in view the modification in the design of the brake beam and brake blocks for fastening by cotters. Though the average annual consumption of the items, on the basis of consumption during three previous years, was 26.3 tonnes for 1961-62 and 37.1 tonnes for 1962-63, the indentors placed their demands for the nuts according to the revised imprests and did not cancel their pending demands nor did they reduce their imprests schedule with reference to the actual consumption, as provided in the rules. To cope with such heavy demands of nuts, the Railway Administration made arrangements for its purchase and manufacture in the workshop at Manmad, for the total quantity of 653 tonnes during 1962-63 and 1963-64. In April, 1964 when heavy stock was built up on account of non-withdrawal of the item by the indentors according to the revised imprests, the railway administration had to cancel pending orders for about 328 tonnes (including 146.909 tonnes where the firm did not agree to the cancellation of the order and the question of compensation on this account being under examination of the Railway Board), outstanding against purchase order/work orders during 1964-65.

2.99. The Railway Administration subsequently made efforts to work off the heavy stock of the 1½" nuts by offering to other railways and using them on B.G. buffer spindles and to wagon builders. As most of the Coaching and Wagon stock on the Central Railway have been provided with cotter type fastening for brake blocks, the consumption of these nuts is very small *viz.*, 4 tonnes per year, for truss bars, draw bars, shackle pins, buffer plungers, etc. The incorrect assessment of the requirements of this

item leading to unnecessary enhancement of imprests without correlating it with past consumption and future curtailment has resulted in accomulation of 247.8 tonnes nuts valued at Rs. 4.66 lakhs (September, 1969) at Currey Road Stores Depot.

[Paragraph No. 14—Audit Report (Railways) 1970]

2.100. The Committee called for figures of losses or brake blocks on wagons and the number of wagons affected thereby prior to the adoption of the revised method of securing of brake blocks referred to in the para. In a note the Railway Board have stated that the relevant information was not available.

2.101. In reply to another question asking for month-wise figures of rolling stock which have been provided with 'cotter' type fastenings for brake blocks, the Railway Board have stated:

> "The shop records pertaining to the period 1961—64 during which these modifications were carried out are not available. The original job-cards have already been destroyed and therefore it is not possible to indicate the month-wise figures of rolling stock which were so modified with 'cotter' type fastening for brake blocks. It is, however, stated that the modification work has already been completed on all the wagons of Central Railway."

2.102. The Committee desired to know whether the implications in monetary terms and in relation to safety of operation, of thefts of brake blocks on wagons had been considered. The Railway Board have stated :—

> "It is difficult to quantitatively assess the implications in monetary terms on operations due to thefts of brake blocks, though it is likely to be considerable. The absence of brake blocks on wagons will lead to reduced brake power, which in turn will affect the operating speeds of the trains. as emergency breaking distance is dependent on the brake power and speed. Loss of speed in operation will result in los of Sectional capacity. Inadequate brake power wil lalso result in reducing the margin of safety in operation and, at times, may lead to accidents."

2.103. To a question as to the reasons for raising the imprest from 56.9 tonnes in 1961 to 196 tonnes in April/May, 1962, and 206.5 tonnes in August/September, 1962, and whether the change

in design had been taken into account before raising the imprest, the Railway Board have replid :—

"With the assumption of Common Carriers liability in January 1962, it was decided to introduce intensive examination of wagons which necessitated revision of imprest of important items essential for maintenance, in order to bring up the standard of maintenance of the rolling stock. The need to improve the general condition of the goods stock was taken up at the highest level and Railways were directed to take steps to ensure that there was no shortage of Carriage and Wagon materials and deficiencies were made good. The Central Railway at that time took steps for upward revision of imprest of all vital items to make good deficiencies. 1½" nuts was one of such items. The instructions for the adoption of the change in design were issued to the Workshops in November, 1961. These modifications were primarily to be carried in workshops and it was reasonable to assume that this work of modification would take about 4 years by the Workshops. In the meantime, Divisions continued to fit 1½" nuts—where they were deficient—to keep wagons in service at the requisite standard of maintenance."

2.104. In a written note, the Railway Board have given the following information regarding demand of M. S. Hex Nuts for the years 1962-63 and 1963-64 and the dates when the indents for these years were placed:

Year	Quantity demanded	Date on which indent was placed on DGS&D
	Tonnes	
1962-63	276·357@	On 29-12-1962 for requirements unto 30-4-1963 after review on 1-9-1962 for a quantity of 188·774 tonnes.
1963-64	200·666@	On 29-5-1962 for 34·3 tonnes estimated in Feb. 62 in 19-1-63 for 120·811 tonnes after review on 1-9-1962.

@ The figures of quantity demanded relate ot calendar years 1962 and 1963. Information financial year-wise is not readily available."

2.105. Asked why was the demand not fixed with reference to actual consumption and keeping in view the modification in the design as had been provided in the Rules, the Railway Board stated as under:

"Revision of the imprest could not be based on the past con-

sumption because this item had been continuously in short supply. As regards the effect of modifications in the design, 1½" nuts had to be procured to keep wagons in commission with the older arrangement, as the modifications were only confined to the workshops where this work was expected to take about 4 years. It is stated that the bulk of the increase in imprest was made by the Nagpur and Jhansi Divisions which interchanged a large number of wagons with other Railways and had neutral control examination in their yards."

2.106. Asked as to how and when did the over stocking come to light and what action was taken to cancel the pending orders, the Railway Board replied:

"Overstocking came to light in April, 1964. Action was taken to cancel the outstanding orders in May, 1964."

2.107. The Committee desired to know whether any compensation was paid to the firm for accepting cancelaltion of the pending orders. The Railway Board have stated:

"There was only one order of 1,46,000 Kgs. where the firm were asked, in June 1964 to suspend supplies and whether they were agreeable to accept cancelaltion. The firm did not agree for the cancellation under plea that they would be put to heavy financial loss. The question of payment of compensation was under consideration only in this case. The firm have not pressed for their claim after 1967 and no compensation has been paid to the firm."

2.108. Asked about the steps taken to work off the surplus stock, the Railway Board have replied: "Over-stocks to the extent of 2,32,000 Kgs. have been disposed of, by sale, through advertised tenders."

2.109. As regards the present position of stock and how it is proposed to be disposed of, the Railway Board have stated: "The balance of stock held, as on 31-12-1970, was only of the order of 4,171 Kgs., which represents one year's requirements. This stock will have to be maintained for issue to various indentors on the Railways."

2.110. The Committee are surprised that the Central Railway Administration raised the imprest of M.S. Hex Nuts 1½" from 56.9 tonnes in 1961 to about four times in August-September, 1962 with-

out corelating it with past consumption and future curtailment of the requirement resulting from the modification adopted in 1960 in the design of the brake beams and brake blocks. Has the Central Railway taken into consideration the Railway Board's directive issued only a year earlier regarding the adoption of the change in design involving fastening of the brake beams and break blocks by cotters instead of nuts and the low rate of consumption of the nuts over the previous three years, a realistic assessment of the requirement of the nuts would have been made and the imprest would have been reduced rather than enhanced. The Committee find it a little difficult to understand how the Railway Administration overlooked these two very important factors. Evidently the provision of the Nuts was done mechanically and injudiciously without taking into consideration all the relevant aspects of the matter.

2.111. The Committee need hardly stress the importance of correct provisioning of stores in the interest of economy. They hope that such instances of over-provisioning of stores will not be repeated in future.

2.112. The Committee were given to understand that the excess stock to the extent of 2,32,000 Kilogrammes was disposed of by inviting tenders. They would like to be informed about the loss, if any, suffered on this account. The Committee would also like to be apprised of the final outcome of the compensation claim of a firm stated to be under consideration.

Eastern Railway—Loss due to short receipt of cement from the Suppliers

Audit paragraph

2.113. Cement is obtained by the Eastern Railway against D.G.S. & D's rate contracts which provide, *inter alia* that:

(i) The Supplier's responsibility for loss/shortage or damage *enroute* or at destination ceases once the goods are handed over to the carriers under clear railway receipts;

(ii) The suppliers may accept 'said to contain' railway receipts if the railway authorities at the station of despatch refuse to issue clear receipts owing to the nature of the stores;

(iii) For loss/shortage/damage noticed in consignments booked under qualified railway receipts or at owner's risk, the Pay and Accounts Officer wil lmake necessary

recoveries from the suppliers on the basis of remarks incorporated by the consignees in the receipt certificate; and

(iv) The permissible tolerance on the weight of cement supplied in bags shall be plus|minus 2½ per cent per bag with an overall tolerance of ½ per cent per wagon load of 20—25 tonnes.

2.114. For the supplies to the Eastern Railway, the cement consignments are booked from three factories on Eastrn Railway and one on Central Railway. At these stations weighbridges have not been installed, but unqualified railway receipts were issued by the railway staff for the consignments accepted and booked without verifying the weights. Since July, 1965 a series of complaints were received from the various Engineering subordinates about heavy shortages in cement bags received in seal-in-tact wagons from the cement factories. The supplying factories, however, disowned their responsibility for the shortages as they had obtained clear railway receipts from the Railway staff on booking the consignments.

2.115. The shortages reported periodically by the consignees after weighment of individual bags selected at random varied from 2 per cent upwards and in some cases it was as high as 28 per cent. Even if it is accepted that the short supply was to the extent of 2 per cent., though it was generally reported by the consignees to be much higher, the loss suflered by the administration in respect of 63,360 tonnes of cement allotted to Eastern Railway during the calandar years 1967 and 1968 works out to about Rs. 2.12 lakhs. In the absence of complete details, it would not, however, be possible to assess the quantum of actual loss suflered by the administration since 1965. The possibility of similar shortages and consequential loss in repect of supplies prior to 1965 cannot be ruled out as the same working procedure both at the forwarding and receiving ends had been followed in earlier years also, at least since 1961 when the rate contract in question was finalised by the D.G.S. & D. The Railway Board stated in January, 1970 that based upon shortages (199 tonnes) actually reported by Railway consignees in 1967 and 1968 the shortages were within tolerance limit (0.33 per cent) valued at Rs. 33,000 only. They have stated that no shortages were reported by consignees prior to 1965 and the shortage reported in 1965 also amounted to 0.04 per cent. The issue of clear Railway Receipts in the past has also been advanced as a commercially prudent step.

2.116. The Railway Administration decided in November, 1968, after the irregularities were pointed out in September, 1968, that only qualified railway receipts should be issued to the supplying firms and that the delivery of consignments should be taken by the Engineering department after weighment of individual bags in presence of commercial staff. This procedure is yet to be implemented in all the divisions.

[Pragraph No. 19—Audit Report (Railway) 1970]

2.117. The Audit para states that unqualified railway receipts were issued by the railway staff for the consignments accepted and booked without verifying the weights. It also states that when complaints or shortages in cement bags received in seal-intact wagons from the cement factories were made the supplying factories disowned responsibility under the plea that they had obtained clear Railway receipts at the time of booking the consignments. The Committee desired to know the reasons for issuance of clear railway receipts by the Railway staff. The Railway Board have explained the reasons in a written note, which reads as under:—

"The procedure obtaining on the Eastern Railway upto 3rd December, 1968 was that cement bags supplied by the factories were assumed to contain the stipulated quantity of cement mentioned in specifications *viz.*, 50 Kg. net. This was on the basis that the cement suppliers are firms of repute with mechanised arrangements for filling of cement bags. Yet another reason was that no weighbridges were available at the cement factories and checking the actual weight of the cement consignments at the time of despatch from the factories was not possible. The Railway, therefore, concluded a gentleman's agreement with some of the cement factories according to which clear RRs would be granted for cement despatches from the factories, but in order to safeguard the Railway's interest, the suppliers would indemnify the Railway for shortages, if any, detected at the time of unloading at the destination station in "seal-intact" wagons. In case of such suppliers with whom gentleman's agreements were not concluded, normal rules in respect of preferring of claims for short supplies were to be followed, depending upon the nature of the RR. The Railway was also under the impression that weighment of cement consignment at the time of despatch was not very essential as it was thought that the Director of Inspection carries out sample checking of the weight of cement bags in the factory.

But subsequently it transpired that this impression was not correct as the DGS & D have stated that no such sample checking regarding the weight of the cement bags is done and the inspection is solely confined to ensuring the quality of the cement."

2.118. In reply to a question, the Railway Board have stated that the revised procedure of issuing qualified Railway Receipts and weighment of bags at the time of delivery of the consignment—decided upon by the Railway Administration in November, 1968—has been introduced in all the divisions of the Eastern Railway. It has been further stated that following the implementation of this procedure no shortage beyond the permissible limits has been noticed.

2.119. The Committee enquired whether the Railway Administration had initiated any action on the several complaints received from various engineering subordinates about heavy shortage of cement received. The Railway Board stated in reply:

"Since the contract with the cement suppliers is entered into by the DGS & D, the matter was reported to DGS & D who in turn took up the matter with the firms. DGS & D have also issued a circular letter on 2nd February, 1970 to all the firms that they should take necessary precautions immediately to ensure that complaints regarding short weight from consignees do not recur. Almost all the firms have assured correct weight of cement bags. The firms were also separately approached by the respective Divisional Superintendents. As the firms did not respond favourably, the procedure of issuing clear RR was revised."

2.120. Asked to state the position of shortage of cement on other Railways, the Railway Board furnished the following information:

"The losses incurred by the Railways are reported to the competent authority according to extant rules. In the absence of such a report, it is taken for granted that no loss has been incurred by the Railways. So far as shortage of cement is concerned, only Eastern Railway's case has come to light. Audit have attempted to assess the loss on the Eastern Railway at 2 per cent on the basis of random checks conducted in 1955. This, it will be appreciated, is a somewhat generalised and rough and ready method of assessing the loss. Further value of loss re-

ported by the Eastern Railways is just Rs. 33,233 in two years—1967 and 1968, *i.e.* about Rs. 16,616 per year against an allotment of 63,360 tonnes of the value of Rs. 1,05,81,120|- (*i.e.*, only 0.3 per cent). In view of what is stated in the first sentence above and the enormous labour that would have been entailed, it was felt that no useful purpose would be served by asking other Railways to collect and furnish information on this point."

2.121. As the supplies may have been made to other Government consumers also, the Committee desired to know whethr any assessment had been made of the probable total loss to Government on this account. In this connection the Railway Board stated as under:—

"Regarding the loss to the Government, DGS & D have advised that no statistics of such transactions are maintained and as such no information can be furnished."

2.122. The Committee, however, understand from Audit that at a meeting held on the 18th January, 1969 which was attended by the representatives of the Central Water and Power Commission, Ministry of Irrigation and Power, Director General of Supplies and Disposals, Ministry of Law, Cement Corporation and Central Statistical Organisation, it was revealed that numerous complaints were being received from the various project authorities regarding the short supplies of cement in bags by cement factories. In Koyna Hydro-electric project alone, the shortage of cement was found to the extent of Rs. 6.85 lakhs.

2.123. In regard to the quantitative checks of cement bags exercised by the Inspection wing of the DGS & D at the time of inspection of material, the Ministry of Supply have stated:—

"It is not expected of Inspectors to check the weight of the stores .... The functions of the Inspectors do not extend to the actual watching of despatches, counting, weighing and loading of stores."

The Ministry of Supply have also stated:—

"As a result of meeting held on 18th January, 1969 with the C.W. & P.C., it was decided that short filling of bags should be treated as cheating and should be dealt with under Weights and Measures Act. In this connection it may be added that all the Cement Suppliers have been told on 2nd February, 1970 to ensure correct weight in the cement

bags failing which action against them would be taken under Weights and Measures Act, apart from administrative action."

2.124. Asked as to the action taken against suppliers for the recovery of the cost of cement short supplied to Eastern Railway, the Ministry of Supply have stated:

"The Eastern Railways were informed of the decision of the meeting held on 18th January, 1969 on 2nd December, 1969 and they were requested to intimate the particulars of shortages received by them in a proforma to the Pay and Accounts Officer. They were also asked to intimate whether they have notified the shortages in the consignee's receipt certificate to enable the P & A O to make proportionate recoveries from the firm's bills to the extent of shortages. No reply has been received from the Railway. If the consignee had given receipt for full quantity in the R|R, it will not be possible for the P & A O to recover any amount from the firms bills for the alleged shortages noticed by the consignee afterwards."

2.125. The Committee are distressed to observe that even though complaints were being received from the engineering subordinates since July, 1965 about heavy shortage of cement received by them, no action was taken to revise the procedure regarding issue of unqualified Railway receipts till November, 1968. The Committee are not able to appreciate how Railways assumed that DGS&D were exercising checks on the weight of cement bags, without making any specific enquiry. In any case complaints regarding shortage which had been coming in since 1965 should have been checked up with DGS&D to make sure if random checking of the cement bags was being done by their inspectors in the factories.

2.126. The Committee are informed that all the cement suppliers have been warned by DGS&D to ensure correct weight in the cement bags failing which action against them would be taken under Weights and Measures Act, apart from administrative action. The Committee would like the Railway Ministry to issue suitable instructions to the Railway Administration regarding the procedure to be followed by the receiving departments for initiating action against the defaulting suppliers under Weights and Measures Act. The Committee desire that the position may be reviewed after the revised procedure has been tried for about two years.

2.127. The Committee also feel that D.G.S. & D. on their part should take steps for exercising atleast random quantitative checks on cement bags at the inspection stage. It may not be possible for all Government departments to have arrangements for weighment of individual cement bags receipt. In the circumstances it will be for D.G.S. & D. to ensure that besides quality, the quantity of cement supplied to Government departments is also suitably checked.

Northern Railway—Acceptance of defective printing papers

Audit Paragraph

2.128. Procurement of paper for the Railway is by the Controller of Stationery, Calcutta against the rate contract of D.G.S.&D. On receipt of the paper the Railway Administration is required to carry out a visual inspection and send a report to the Deputy Controller of Stationery (Inspection) for final inspection and acceptance. Complaints regarding defects are required to be sent to the suppliers by the Controller of Stationery within 45 days of receipt of paper. A period of 15 days from the date of complaint, for taking samples and an equal period for reporting on the samples are allowed to the suppliers and thereafter the consignee is free to utilise the consignment.

2.129. In July, 1964 three consignments of 4332 reams of paper valued at Rs. 1.04 lakhs were received in the Printing Press, Shakurbasti. On inspection, the Assistant Press, Superintendent found that the paper was specky, weak and the pulp was not fully disgested. This was reported to the Deputy Controller (Inspection) along with the samples on 5th August, 1964. Before the test reports were received, 440 reams of paper were consumed between 5th August, 1964 and 28th August, 1964 even though the Railway Administration held in stock 1886 reams of paper procured earlier. After laboratory test, the Deputy Contorller (Inspection) informed the firm on 28th August, 1964 that the paper was sub-standard and the firm should inspect the lot if desired within 15 days. The Superintendent Printing and Stationery, Shakurbasti was simultaneously asked whether the paper would serve his purpose and the lot should be kept aside for 45 days. On 9th June, 1965 *i.e.* nearly after a period of one year, after the receipt of the material, the Superintendent Printing and Stationery, Shakurbasti informed the Assistant Controller (Inspection) that the paper was not suitable.

2.130. In December, 1965, the D.G.S. & D. directed the firm to remove the balance quantity of 3982 reams of rejected paper and allow 5 per cent rebate on the quantity consumed. No action was, however, taken to withhold the dues of the firm against other con-

tracts to safeguard the Railway's interest. While the firm did not accept the rejection on the plea that the paper had been lying with the consignee for more than two years and a part supply had also been consumed, they agreed to a rebate of 5 per cent on the total quantity. In July, 1966, when the D.G.S.&D. recommended acceptance of the entire quantity of paper at 5 per cent reduction offered by the supplier, the Railway Administration stated after further examination of the stock, in October, 1966 (*i.e.* two years after receipt of supplies) that apart from the defects already intimated, the paper had holes of the size of pinpoint to a buttonhole and as such the rebate of per cent offered was inadequate. The Assistant Controller (Inspection) stated in September, 1968 that it would not be possible to make the firm agree to the fresh defects pointed out at such belated stage and there was no scope for getting the rebate of 5 per cent offered, enhanced further.

2.131. The Administration decided in January, 1969 to accept the entire quantity at a rebate of 5 per cent although the paper was found to be unsuitable for printing, being too soft to be fed in the machines and also had holes of the size of pinpoint to buttonhole. The administration stated (July, 1969) that the paper would be put to alternative use.

2.132. Delays in rejecting the consignments which were known to be sub-standard have compelled the Railway Administration to retain the paper on terms that do not provide for adequate compensation.

2.133. The Committee desired to know the reasons for the utilisation by the Railway Administration of 440 reams of the defective paper when stock of 1886 reams was already available. The Committee also enquired whether in view of the known defects in paper the Railway Administration had considered the implications arising out of the utilisation of defective paper. The Railway Board have stated :—

> "In this case the consignee had while reporting on the defects under his letter of 5.8.64 intimated the Dy. Controller of Inspection that paper was accepted. It was in this context that the Railway utilised 440 reams. The utilisation of this quantity, when 1886 reams were already in stock, was due to the fact that this quantity which was already accepted, was more easily accessible for use. Railway had presumed that in this case since the supply had been found acceptable but with certain defects, the Controller of Stationery will decide upon the quantum of

the rebate and the supplier would accept the same. As such the question of any implication arising out of the Railway's utilising the defective paper was not considered."

2.134. The Audit para states that the Deupty Controller (Inspection) had initially in his letter dated 28.8.64 asked the Superintendent, Printing and Stationery, Shakurbasti to confirm whether the paper would serve their purpose. The Superintendent Printing and Stationery Shakurbasti, in his letter dated 9th June, 1965 informed the Assistant Controller (Inspection) that the paper was not suitable. The Committee enquired why the Railway Administration took nearly 10 months in informing the Assistant Controller (Inspection) that the paper was not suitable. The Railway Board have explained:

"No immediate reply could be given on this point as in the mean time the supplier had desired that the Inspection authorities should give judgment on the supplies after inspecting fresh samples which were to be drawn at random jointly by him as well as the consignee's representatives. The fresh samples were drawn on 30.11.64 and as, till February, 1965, no decision had been received from the Deputy Controller (Inspection) Calcutta, a reminder dated 25.2.65 was issued to him. In reference to this reminder the Assistant Controller (Inspection) under his letter dated 11.5.65 enquired if the supply as received was considered suitable for the indented purpose as without this information no further decision could be taken. In reply to this reference Superintendent. (P&S) under his letter dated 9.6.65 informed the Assistant Controller (Inspection) that the paper was not suitable for the indented purpose."

2.135. Asked to what alternative use the paper had been put as it was not found suitable for the indented purpose, the Railway Board have stated that "Although, at one stage it had been decided to put this paper to alternative use, in actual fact it was utilised for the indented purpose." It has also been stated that "The paper has already been used up and at present there is no stock of this supply."

2.136. Explaining the reason why the presence of holes in the paper was not noticed when the paper was inspected by the Assistant Press Superintendent on 5th August, 1964, the Railway Board have stated:—

"The initial report made by the consignee *viz.*, Assistant Printing Superintendent on 5.8.64 was done on a random check of the supplies. Subsequently in the course of correspondence, Deputy Controller of Inspection Calcutta had *vide* his letter of 10.10.1965 decided that 5 per cent rebate should be given on the consumed quantity of 400 reams and the balance supply should be returned back to them. The firm, however, in their letter of 20.4.66 had agreed to allow 5 per cent rebate, if the entire quantity of the defective supply was accepted. While considering this proposal from the firm, the consignee once again inspected the supplies more extensively and observed further defects *viz.*, presence of holes."

2.137. The Committee enquired whether the paper was inspected by the firm within 15 days of the issue of Deputy Controller's (Inspection) letter of 28th August, 1964 and whether any report was sent to the Deputy Controller (Inspection) thereafter. The Railway Board have, in a written note, replied:

"In terms of the Deputy Controller of Inspection's letter dated 28.8.64 the firm (M|s.....) should have inspected the paper by 12.9.64. It is seen from the firm's letter No. FBD-4380 dated 24.9.64 to the Deputy Controller (Inspection) Calcutta, copy to Superintendent. (P&S) Northern Railway that in their letter No. FBD-4185 dated 11.9.64 they had informed the Deputy Controller (Inspection) that they had deputed their representative to draw fresh samples from the supplies made to Superintendent. (P&S) Northern Railway and that the authorities did not allow their representative to inspect the stocks in the godown. In their letter of 24.9.64 they requested the Deputy Controller (Inspection) to advise the consignee to draw samples at random in larger number in the presence of their representative and to send them to the inspecting authorities for testing, signed by the firm's representative and representative of the consignee....."

As regards whether the firm sent a report to the Deputy Controller (Inspection) Calcutta after drawing the samples, reference be made to the relevant extracts, reproduced below, of comments of the Inspection Wing attached to the Stationery Officer, Calcutta, received under Department of Works, Housing and U.D's (Ministry of Health and Family Planning and Works Housing and Urban

Development) No. G-25015|4|70-P.II, dated 24-10-1970.

"* * * * *

It may be mentioned that the consignee in his letter No. DCS|11|64 dated 25th February 1965 had mentioned that the representative of the firm had on 30th November, 1964 taken the samples. However, there is nothing in our record to show what action the firm had taken on these samples. No samples were, however, received by this wing from the firm at any stage. This wing, therefore, could naturally not offer any comments on these samples."

* * * * *

2.138. Explaining the reasons why the firm was not allowed to draw the samples initially, the Railway Board have stated:

".....the staff were not sure as to whether dealing with the firm directly and handling over the samples to the firm's representative would be in order. On receipt of the firm's letter on 24th September, 1964, the matter was re-examined and the firm was asked by the Superintendent Printing and Stationery on 24th October, 1964 to send their representative to draw fresh samples which were collected by the firm on 30th November, 1964."

2.139. The Audit para also states that in his letter of 28th August, 1964, the Deputy Controller (Inspection) had also desired the Railway Administration to take up the defects noticed in the paper directly with the Mills within 45 days of their receipt. Explaining the reasons why this was not done, the Railway Board have stated:

"In his letter dated 28th August, 1964, the Assistant Controller (Inspection) Calcutta had already taken up with the firm for the defective supply and had asked them to remove such defects in their future supplies. In his endorsement to the Superintendent (P & S) the Assistant Controller (Inspection) had indicated that the matter should be taken up with the mills direct within 45 days of receipt in the event of any discrepancy. This direction was apparently meant for future supplies. As per the contract condition it was the direct demanding officer who was responsible for taking up with the supplier for defective supplies; in this case the Controller of Stationery was the direct demanding officer and not the Railway."

2.140. The Committee enquired why no action was taken by the D.G.S.&D. to reject the supplies and withhold dues of the firm

against other contracts when after laboratory test by the Deputy Controller (Inspection) the paper was found to be sub-standard. In a note on this point, the Ministry of Supply have stated:

> "Normally when the tendered stores are not to the specified standards, they are rejected by the Inspectorates. In the case of paper, however, the position is slightly different as the paper mills, owing to various difficulties, have not agreed to pre-despatch inspection of paper. The consignments of paper are sent direct by the paper mills to the consignees against the supply orders placed on them against the rate contracts. The consignees, thereafter, draw samples from the consignments and send them to the Deputy Controller of Inspection (Sty) Calcutta for test in his laboratory to find out as to whether the papers supplied conformed to the prescribed standards. Unlike other stores, the practice in this case is that even if the paper is found to be deficient or not fully conforming to specification, the rejection notes are not issued by the inspector outright to the supplying mills but the paper mills are informed about the deficiencies found in the consignments and the consignees|indentors are asked as to whether the paper supplied will serve the end-use in view and, if so, the inspector recommends a suitable price reduction for acceptance of stores under deviation.
>
> In this case, after the supplies were effected and the consignee sent some representative samples to the Inspecting Officer, the Stationery Office, Calcutta who tested the samples found the same to possess some deficiencies in regard to fold strength which should have been 10.0 D. F. in place of 3.5 D. F. on an average. The paper was considered sub-standard and inspection notes were kept pending till finalisation of the case. Simultaneously it requested the consignees whether the paper supplied, being of low strength, was considered to serve the end-use. In view of this special procedure in vogue for the inspection of paper, the question of rejecting the stores outright by the inspecting officer and recovery did not arise."

2.141. The Committee observe that the Northern Railway failed to follow the standard procedure laid down when a consignment of paper is found to be defective. In the first instance, some quantity of the defective paper was consumed to the detriment of Railway's claim on the supplier without waiting for the report of the Deputy Controller (Inspection), to whom samples had been sent for laboratory test.

Secondly the Railway Administration failed to take up the matter of defects in the supplies with the Mills as advised by the D.G.S. & D. And thirdly there was unreasonable delay in informing the Deputy Controller (Inspection) about the defects noticed in the paper.

2.142. The Committee are surprised to learn that although, at one stage it had been decided to put this paper to alternative use, in actual fact it was utilised for the indented purpose. This needs to be looked into.

2.143. The Committee would also like to know whether responsibility for the delays at various stages has been fixed and suitable action taken against those responsible for the lapse.

2.144. The Committee would like Ministry of Railways to issue detailed standing instructions, in consultation with Department of Supply to obviate recurrence of such instances.

Loss due to excess supply of Railway scrap to a sleeper manufacturer at the controlled rate.

Audit paragraph

2.145. A contract was placed on a firm in February, 1962 for manufacture and supply of 3,000 tonnes of C. I. Sleepers by 31st March, 1963, utilising (as raw material) 50 per cent pig iron and 50 per cent railway scrap to be made available at the controlled rate of Rs. 98 per tonne. The scrap was to be supplied by the Northern and Western Railways.

2.146. The firm supplied 926 tonnes of sleeper plates upto July, 1962 and did not make any further supply despite the Ministry of Railways (Railway Board) extending the delivery period upto 31st December, 1963. The non-supply of any sleeper plates was attributed to a ban imposed by the Iron & Steel Controller (October, 1963) on the supplies of pig iron, etc., to the firm.

2.147. In August, 1962, the Government of India removed the price and distribution control on melting scrap which resulted in a steep rise in the market rate for cast iron scrap (assumed at Rs. 236 per tonne in the tender proceedings in May and June, 1963). The Railway Administration instructed all Railways through its circular dated 14th November, 1962 that scrap may, however, continue to be supplied against earlier contracts at the lower pre-decontrolled rates specified in their respective contracts. The sale of scrap at the lower rates was covered by an undertaking from the firm that the scrap would be used in the manufacture of sleepers alone and would not be disposed of otherwise without the permission of Railways.

2.148. The Western Railway started supplying the first lot of 500 tonnes of C.I. Scrap at the controlled rate of Rs. 98 per tonne from August, 1963. In all 1000 tonnes of C.I. scrap was supplied by Western and Northern Railways. As the firm did not supply any sleepers beyond 926 tonnes, only 463 tonnes of railway scrap (being 50 per cent) could be deemed to have been utilised in the manufacture. The delivery period of the contract was not extended beyond 31st December, 1963. No action was taken by the Ministry of Railways (Railway Board) immediately thereafter, to address the firm in pursuance of the undertaking given by them for returning the balance of 537 tonnes of railway scrap, lying with them or refunding the difference in value between the market rate and the controlled rate.

2.149. The above firm participated in the Railway Board's tender for supply of sleepers for 1965-66 in February, 1965. Although it was known that they had been lately covered by a ban on supply of raw materials etc., to them, the Ministry of Railways (Railway Board) placed an order in February, 1966 (in cancellation of the contract of February, 1962) for supply of 5,000 tonnes of C. I. sleepers on railway scrap basis, with a view to utilising the scrap lying with the firm since 1963. However, no supply materialised. On 7th June, 1966, the firm went into liquidation. In August, 1966, the Board finally addressed the firm to treat the contract placed in February, 1966, as cancelled and return the scrap or pay the diflerence in value thereof, between the market price and controlled rate *viz.*, Rs. 1.62 lakhs. A further amount of Rs. 1,138 was also due from the firm, as compensation charges under an earlier contract. As against the dues of Rs. 1,63,138 the Ministry held only the firm's security money of Rs. 20,000. The Eastern Railway Administration was directed by the Ministry of Railways (Railway Board) in October, 1966 to file the Railway's claim with the official liquidator and watch recovery which is still pending.

2.150. The sale of railway scrap at controlled rate to a firm which did not make supplies against the contract for C. I. speepers placed with them without adequate safeguards against the diversion of the scrap to non-railway uses and the delays in taking action to recover the same even after the expiry of the extended delivery date has resulted in the scrap or its real value remaining unrecovered from the firm on date even after the expiry of over 5 years after the sale.

[Paragraph No.—17 Audit Report (Railways), 1970]

2.151. The Committee enquired what action was taken by the Railway Administration for the return by the contractor of the scrap or for the recovery of the difference in the value of the scrap at the market rate and controlled rate when the contractor failed to supply the requisite quantity of sleepers even after the extension of the con-

tract upto 31st December, 1963. The Chairman Railway Board informed the Committee during evidence:

"This contractor had quoted a very reasonable rate for the Supply of this. Theirs was the lowest rate in 1962. In fact the 1963 rate was higher than the 1962 rate; that is, in 1963 the rate was Rs. 292.5 and the 1962 rate was Rs. 277. Now, at the end of this period, *i.e.* December, 63 when the extension period had expired, we were considering to give further extension for two reasons. One is that their rate was lower than the rate at which contracts were based next year; and secondly, the firm did not receive any pig iron for a period from 18.10.63 and beyond 7.11.64. But that part was not very material. The material part is two months or so when they did receive any raw material.

So we wanted to take advantage of this low rate by giving them an extension and they also asked for it. There was a delay in finalising it. Unfortunately, there was delay because we wanted to make sure that the ban has been lifted. That procedure took us up to the end of 1964, because it was only in October, 1964 that this ban was lifted. Then, when we were thinking of giving extension, things were being considered finally, next year's tender was also called for, *i.e.* 1965 tender. And here again this firm's rate was the lowest——much lower than the other firm's. Actually as against the general rate of Rs. 280, this firm's rate became Rs. 260. So we ultimately decided that we would give him about 5000 tonnes of sleeper orders against 1965 order, cancel the 1962-63 order, and utilize the unutilized scrap of about 500 tonnes for this contract because in this contract the terms were that 25 per cent of the scrap will be delivered by the Railway to the contractor free. But the contractor will have to execute a bank guarantee or that amount. Now, ultimately Sir, this firm was given an order by taking into account this 537 tonnes of scrap with them and the condition was that once they supply sleepers to the tune of 537 tonnes of scrap, we will pay them at Rs. 98 per tonne or that scrap, because this time the contract was free supply. Now correctly speaking, when this contract was executed we should have, or could have, got a bank guarantee from the contractor on this 537 tonnes of scrap that was with them, at the rate of scrap minus Rs. 98 which they had already paid. But that part was not done. Unfortunately, before any

further action could be taken, this firm went into liquidation."

2.152. The Chairman, Railway Board further added "This firm was dealing in sleepers from 1960 onwards and they have been successfully carrying out the contracts. So there was no occasion to have any doubts, but as I said all this transaction was to get this financial benefit of lower rate. The only failure as I see today is that Railways could have or should have executed a bank guarantee at the placement of the new contract which they were contemplating. That is the failure."

2.153. Asked as to the reasons for the non-supply of pig iron to the firm by Iron & Steel Controller, the Chairman, Railway Board stated during evidence, "There was SPE investigation against the firm from October, 1963 to October, 1964. During this period the SPE wrote to Iron and Steel Controller to impose ban on the supply of pig iron and to other parties for supply of coal, coke etc."

2.154. On this point the Iron & Steel Controller informed the Committee as under:

"Actually, Sir, there were two sister concerns one of which had taken this contract. They both joined together. It came to our notice some time in April, 1963 that they had indented in the year 1961 for 47,000 tons of pig iron and next year also indented for the same material. A suspicion had arisen that this firm was utilising so much of big iron and on investigation by our inspection staff it came to our notice that this firm had only a capacity of 3,000 tons while in that year they had planned for 47,000 tons. On further enquiry it was also noticed that this 47,000 tons was planned on the basis that the Director of Industries, Bihar Government had assessed their capacity at 48,000 tons. How he assessed, of course, SPE went into the thing later on. But another thing came to our notice that there was a sister concern of this firm which had another factory in Baidyabati (W. Bengal)—the Hanuman foundaries. I was first mentioning of Vaidyanath Iron & Steel Co. Jasidih (Bihar). They did two wrong things. One, they suppressed the fact while indenting in 1962 that they had also had a planning for 47,000 in the earlier year. They did not say anything. Secondly, they made a wrong representation in asking for material of 47,000 tons while the capacity was for 3,000. When it was gone through by our Inspectorate staff if came to our notice that they wanted to set up a

unit with blast cupola. The capacity sanctioned was of 6,000 tons. They had some foundary at another place, Hanman Foundaries Works. There also that foundary was closed for one or two years but they were getting an annual quota of big iron to the extent of 35,392 tons. When it came to our notice, on 2nd April, 1963 we reported the matter to CBI and naturally on the report of the CBI ultimately this firm was banned in October, 1963 but after a year, after consideration of the CBI report, the Government re-considered the whole matter and perhaps there was no criminal proceedings possible and in view of other facts before the Government the ban was lifted in October, 1964 and perhaps that is why the Railway Board placed the order."

2.155. The Committee enquired whether the Railways had no information regarding the mal-practices indulged in by the firm. The Chairman, Railway Board replied, "This information did not come to us. I can tell you this firm was working since 1960 and so far we are concerned we had no difficulty. In 1961 we got 5000 tons from this firm. In 1962 we got about 4,000 tons. Then we gave the order only in 1965."

2.156. To a question whether there was no liaison between the Ministry of Railways and the Iron & Steel Controller, the Chairman, Railway Board replied: "unless they tell us that this firm is of doubtful character, we will not be able to know."

2.157. Asked whether the losses could not be recovered from the firm, the Chairman, Railway Board informed the Committee that a claim had been filed with liquidator. In a note the Railway Board have further stated :

> "The Railway's claim for the amount due from the firm had been filed with the official liquidator on 22nd August, 1967 and has not so far been finalised by him."

2.158. The Committee enquired whether before placing orders on a firm, Railways make some sort of inspection. To this Chairman, Railway Board replied, "When a new firm comes we give educational order. In 1960 this firm was given educational order of 300 tons. When they completed it successfully we gave them this order."

2.159. The Committee desired to know whether any precautions are now taken to avoid recurrence of such cases. The Chairman, Railway Board stated: "Today every contract of sleeper is covered by a bank guarantee. This earlier contract was merged with the

later contract and so there was difficulty. Had the Controller informed us, this difficulty would not have arisen. Even for fabricator we normally take the Bank Guarantee."

2.160. The Committee regret to observe that in the contract entered into with the firm in 1962, there was no built-in provision for safeguarding the monetary interests of the Railways if the firm used the scrap for a purpose other than manufacturing CI Sleepers. When a new contract with the firm was entered into in 1965, the Railways failed to obtain Bank guarantee to fully safeguard their interests. The Committee take a serious view of this lapse and desire that responsibility for it should be fixed and the Committee informed of the action taken.

2.161. The Committee are surprised to learn that following a special police enquiry a ban was imposed on the supply of pig iron and coal etc. to the firm, but the Railways who had been dealing with the firm for quite some time had no information about the action taken against the firm. This illustrates lack of co-ordination amongst various Ministries/Departments of Government of India. The Committee recommend that a detailed procedure should be laid down to ensure that action initiated against any firm/party by one Government Department is notified to all other Government Departments/Ministries for information and necessary action.

2.162. The Committee would also like to be apprised of the outcome of claim field by the Railway Administration with the official liquidator.

III

MANUFACTURING OPERATIONS

Southern Railway—Extra expenditure due to defective manufacture of 'O' type wagons in Railway Workshops

Audit Paragraph

3.1. The Southern Railway manufactured 1500 numbers of 'O' type wagons during the period from October, 1961 to October, 1964 at the Golden Rock workshop. 500 of these were allotted to the Eastern Railway, 200 to the Northern Railway and 800 to the Southern Railway.

3.2. In February, 1966 the General Secretary of the Indian Railway Conference Association during his inspection of the sick lines at Kanpur observed that the head stocks and underframes were badly damaged in two of the above wagons and attributed this to wrong manufacturing process. Similar defects were also seen on the wagons inspected by the Southern Railway. In April, 1966 the Southern Railway Administration intimated the Research Designs and Standards Organisations that there had been certain variations from the prescribed drawings in the manufacture of these wagons. A standard repair procedure followed by the Southern Railway to rectify the defects was forwarded to Northern and Eastern Railways in October, 1966 requesting them to attend to the wagons manufactured by the Golden Rock workshop. Meanwhile, large scale damages to the head stock of this type of wagons resulted in stabling of 200 wagons on the Southern Railway.

3.3. The Research Designs and Standards Organisation, after detailed examination of 130 out of the 200 stabled wagons, reported to the Railway Board in March, 1968 that in addition to the manufacturing deviations, certain manufacturing defects were also noticed and attributed the large scale damages to poor construction. It was also suggested that major rectifications to the wagons have to be carried out by the user Railways. Accordingly, instructions were issued by the Railway Board in May, 1968 to the Southern, Eastern and Northern Railways to effect repairs to the damaged wagons and to reinforce the other wagons, which were not damaged, to remove all manuacturing deviations and defects, in consultation with the Research, Designs and Standards Organisation.

3.4. The repair and rectification work was taken up in the Golden Rock and Perambur workshops of the Southern Railway in 1968. For 510 wagons on which the repairs, rectifications and modifications were carried out upto the end of December, 1968, the Southern Railway Administration had incurred an expenditure of Rs. 7.11 lakhs, out of which Rs. 3.25 lakhs were spent only for repairing and renewal of damaged members and the balance for carrying out modifications and improving the design features. 24 more wagons were repaired after December, 1968 and the remaining 266 are yet to be rectified (December, 1969).

3.5. On the Northern Railway 63 wagons out of 200 were repaired upto December, 1968 at a cost of Rs. 13,900. This expenditure relates to the repairs and modifications cardied out to the extent necessitated immediately by damages to components and does not include the cost of all the modifications suggested by the Research, Designs and Standards Organisation which are proposed to be carried out in stages on all the wagons. Out of 500 wagons allotted to Eastern Railway, 184 have been given periodical overhaul of which 16 cases were reported to have major defects. The Eastern Railway Administration were not in a position to give the cost of repairs, rectification and modifications to these wagons, as separate roads have not been kept.

3.6. The Southern Railway Administration have stated that the damages to the wagons have been caused by the combined effect of the design features containing new techniques in which sufficient experience had not been gained and the minor deviations from the prescribed drawings which had to be adopted to suit the local manufacturing facilities. According to the Research, Designs and Standards Organisation, however, the defects are entirely due to deviations from the standard specifications and poor quality of workmanship.

[Paragraph No. 18, Audit Report (Railways) 1970]

3.7. The details of requirement orders placed for the 'O' type wagons on private firms and railway workshops and the supplies made by them between 1958 and 1964 are given in the statement (Appendix IV) furnished to the Committee.

3.8. The Workshops where manufacture of 'O' type wagons was taken up for the first time after 1961-62 were Amritsar, Jagadhri, Mahalaxmi, Jhansi, Liluah and Golden Rock. The circumstances un-

der which the Railway workshops were asked to undertake manufacture of wagons have been explained by the Railway Board in a written note, as follows:—

> "During 1960-61 there was a considerable demand for wagon stock due to the additional load generated as a result of the first two Five Year Plans and the expected increase in load due to the Third Five Year Plan. The capacity then available in the private sector was not sufficient to cope with this load and therefore alternative sources of production had to be considered. During this period also. Railway Workshops were in the process of introducing the incentive schembe to increase productivity in Railway Workshops. It was known that introduction of the incentive scheme with the lead existing at that time would create considerable surplus capacity and staff which would need to be immediately utilised to prevent idling of capacity and labour. Alternative lines of production were investigated for various shops and it was seen that wagon production could be entrusted to certain workshops of the Indian Railways to enable optimum utilisation of staff and shop capacity....The railways were individually addressed to indicate the detailed capacity available for production of wagons and components so that the extent of orders which could be placed could be determined. Based on these assessments, final orders were placed."

3.9. The Financial Commissioner, Railways, informed the Committee during evidence that at that time Railways had a requirement of about 43,000 wagons against the installed capacity of only 25,000 wagons in the country. It has also been stated in evidence that the first order of 1,000 wagons was placed on the Golden Rock Workshop in 1961 and the second order of 500 wagons was placed on the same workshop in 1963. Asked why such a bulk order was placed on a workshop which had no built-in capacity for manufacture of wagons, the Chairman, Railway Board deposed: "You can say this is a bulk order. Our requirement was so high that orders were placed with all the workshops. Somebody has 3,000. Eastern Railway got 2,500; Central Railway got 1,500; Golden Rock got 1,000; Northern Railway got 1,000. So, excepting the Western Railway who got an order of 500 of this type, all other workshops had a minimum order of 1,000. Central Railway—1500; Eastern Railway—2,500." The Chairman Railway Board added: "They are not novices. They were doing the repair of carriages. They were now taking to manufacturing

work. We found out that workmen were available and we gave the equivalent order.'

3.10. The Committee drew attention to the following observation in the audit para:

> "The Research, Designs and Standards Organisation, after detailed examination of 130 out of the 200 stabled wagons reported to the Railway Board in March, 1968 that in addition to the manufacturing deviations, certain manufacturing defects were also noticed and attributed the large scale damages to poor constructions."

3.11. The representative of the Board explained:

> "There is no doubt that the Southern Railway when they manufactured these wagons, did make certain deviations from the specified drawings and also had certain manufacturing defects. This has been established because these were examined and found that these defects were there.
>
> When these wagons go out in marshalling yard and they are shunted, then when the two wagons meet together and collide, that thing happens either due to the design being weak or because of the manufacturing defects or because the bumping has been too severe."

3.12. The Committee enquired why the deviation in the manufacturing design was made. It was explained that at that time a particular type of angle was not at all available. They had therefore, to use an ordinary plate for making it into angle.

3.13. Asked whether the deviation was permitted by Research, Designs & Standards Organisation the witness replied in the negative. He however added that the deviation had been authorised by the Railway Board after the Additional Member (Mechanical) had personally seen and accepted it. Later on RDSO had also approved the deviation. It was also clarified that although Railways had authority to undertake minor modifications all major deviations have to be approved by RDSO.

3.14. The Committee enquired whether any action had been taken against the Additional Member (Mechanical). The witness stated: "The advice that he gave was that instead of angle, a bent plate can be used, and instead of welding, rivetting the floor plate can be used. He did not say that you should make it badly. The trouble arose

because of bad workmanship of the Golden Rock workshop."

3.15. The Committee were informed by Audit that the R.D.S.O. had commented as under, upon the deviations adopted by the Golden Rock Workshops:

> "As per particular specifications 61-B-02 and 62-B-15 the manufacturers were not expected to cut the top and bottom flanges of the diagonal for fixing the end longitudinals and the cross bar joint. To this extent therefore, the Southern Railway adopted a modification contrary to the standard drawings. If the Southern Railway had adopted this practice, they should have ensured that a 10 mm fillet weld was also incorporated, joining the flanges of the diagonal and the end longitudinals.
>
> Large scale failures of this nature have only been noticed on wagons built by the Southern Railway which number 1500 out of a total of 13,423. This significant aspect speaks for itself in respect of poor workmanship. Components flame cut should have been subsequently dressed.
>
> Further the Southern Railway assessment that the existence of a gap should not cause any serious defect cannot be accepted. Knees are provided to stabilise the joint geometrically and not to withstand the entire impact forces which are expected to be shared by the full cross section of the mating members forming the joint. When gaps are left at the joints, knees are overstressed as they get no assistance from the cross section of the concerned mating members.
>
> The drawings call for the knees to be made from rolled angles. Bent plates do not give strength.
>
> In the opinion of this office, poor workmanship as already reported *vide* this office letter No. M/W/O of 13-3-1968 in reply to Boards letter No. 67/M/(N)/204/5, dated 16-1-1968 and as evidenced from the set of photographs, would appear to be the primary cause of these failures."

3.16. Asked whether responsibility for poor workmanship had been fixed, the Chairman, Railway Board stated: "I would like to submit to the Committee that the manufacture of this type of wagons in Golden Rock Workshop was taken up for the first time. The Golden Rock workshop was not meant for manufacturing of wagons. The Indian Railways was at that time very short of wagons, and they

had to undertake manufacture of these wagons both in private as well as our Railway workshops. And we went to Golden Rock Workshop with this order. People who had no experience in this type of work to be put on this job. This job was carried out with the best of intentions by these men, and the wagons were produced. And conversion has become now a permanent feature in the Indian Railways, in almost all spheres. We are converting steam locomotives repairers to diesel locomotive repairers, and from steam to electric locomotive repairers. And Chittaranjan is converting people who are doing manufature of steam locomotives to electric locomotives and diesel shunters. So, we have got to allow indulgence for their inefficiency in this new trade. I would not justify that they should be allowed to do all works. But if there has been some slip somewhere in their initial period, I think, Sir, we should take it as a cost of conversion and not as a cost of negligence. This is my submission."

3.17. In reply to another question regarding the supervision by technical personnel the Chairman, Railway Board deposed:

> "The Technical persons were there. And even the workmen themselves know that this is good job and this is bad job or this is not a good job. And they try to do their best unfortunately, here, of course the Member (Mech.) has not told you that there were no inherent weaknesses in the design itself of the headstock. That means, the headstocks for this particular wagon was not strong enough to allow for any variation, normally you never get a job exactly to the specification. But here, there was very little scope for any shortfall in the manufacturing process. And unfortunately this job went to a new workshop and that was due to our acute requirement of wagons in those days. So, I would request the Committee to consider the circumstances under which this little bit—you may call inefficiency—took place in the workmen of the Golden Rock workshop".

3.18. In another context, the Chairman, Railway Board observed:

> "I think, Sir, you have to permit in certain respect these types of failures, if you may call it. As I told you, we would be facing similar paras from you probably in future also because we are trying to do many things with this conversion in various workshops".

3.19. The Committee note that an order for manufacture of 1,000 wagons was placed on the Golden Rock Workshop by the Railways

in 1961, and again for 500 wagons in 1963. These orders were placed to meet the pressing requirements of wagons for the Railways as also to utilise gainfully the staff who were expected to become surplus as a result of wage incentive scheme. While the Committee appreciate the considerations for placing orders on the Workshop even when it had no previous experience of manufacturing wagons, they feel that adequate precautions were not taken to eliminate chances of accurrence of manufacturing deviations and manufacturing defects. The Committee feel that no deviation from the prescribed specifications components should have been allowed without prior consultation with the Research, Designs and Standards Organisation which also works under the Railway Board. Secondly, the inspection organisation should have been suitably strengthened to ensure that no shortcomings were allowed to creep in during the process of manufacture and that rigid standards were enforced at the time of final passing.

3.20. The Committee understand that the Railways are switching over from one type of manufacture to another in various Workshops under their control to match the changing requirements. The Committee are keen that the Railway Board should learn from the costly lapse that has occurred in the present case and devise remedial measures to ensure that such instances of vital defects creeping in the process of manufacture should not be allowed to recur on the plea of manufacture being taken up for the first time.

Manganese Steel Crossing Section of the Chittaranjan Steel Foundry.

Audit Paragraph

3.21. The Chittaranjan Steel Foundry has been set up at an estimated cost of Rs. 6.63 crores with an installed capacity for 10,000 tonnes of a steel castings per annum. Out of this, capacity for 1000 tonnes was planned, developed and earmarked for the manufacture of manganese steel crossings for use in railway track. The provision for 1000 tonnes capacity for manganese steel crossings was made on an *ad hoc* basis without any detail or break-up in terms of angles of crossings, section of rails or weight of castings as a minimum sustained requirement. In the initial stages of laying out the foundry, the Ministry of Railways (Railway Board) decided (June, 1960) that 1 in 16 and 1 in 20 size crossings should initially be manufactured at the Chittaranjan Steel Foundry and directed that the

heat treatment furnances should be designed to handle crossings of these bigger sizes. It was noticed in November, 1963, when all the Railways had furnished their requirements of manganese steel crossings, that the requirement of 1 in 16 and 1 in 20 crossings was very small (185 Nos. of 1 in 16 and 65 Nos. of 1 in 20). While permitting the Chittaranjan Locomotive Works Administration in December, 1963 to take up the manufacture of 1 in 12 size crossings, the Railway Board continued to emphasize the need for priority for the development of 1 in 16 and 1 in 20 crossings upto May, 1965. Accordingly, the Chittaranjan Locomotive Works Administration had developed the manufacture of these two types of crossings first and 1 in 12 and 1 in 8½ size crossings only later on. It was only in February, 1967 that the Ministry of Railways (Railway Board) examined in detail the possibility of large scale utilisation of bigger size crossings and come to the conclusion that in 16 and 1 in 20 crossings could not be used freely without extensive remodelling of the yeards, which would not be financially justified. The Zonal Railways, which had already procured 1 in 16 and 1 in 20 crossings from Chittaranjan Locomotive Works and from the trade, were finding it difficult to use them. The Railway Board, therefore, decided in May, 1967 that the use of manganese steel crossings should be restricted to only 1 in 8½ and 1 in 12 sizes on the broad gauge in locations where the built up crossings have short life. The manufacturing programme of the Chittaranjan Steel Foundry (Manganese Steel Crossings Section) has, therefore, been switched over almost wholly to 1 in 8½ and 1 in 12 sizes and a small number of 1 in 16 size crossings. Thus the Ministry of Railways had not properly assessed the requirements of the different sizes of manganese steel crossings with reference to the locations of the yards in which they are to be used and the technical and financial implications before deciding upon building up capacity for 1000 tonnes per annum.

3.22. A review undertaken by the Ministry of Railway in December, 1967 of the requirements of manganese steel crossings showed that the total demand would be of the order of 725 numbers per annum. On this basis the availability of load for the manganese steel crossing section of the Steel Foundry was assessed at 350 tonnes per annum and the target production per annum has been scaled down from 1000 tonnes to 350 tonnes. The maximum load ever available for the manganese steel crossing section since its commencement of regular production in April, 1966 was 485 tonnes. With the Railway Boards decision of May, 1967 to restrict the use of manganese steel crossings to 1 in 8½ and 1 in 12 sizes, the load position of the manganese steel crossing section of the Chittaranjan Steel Foundry had steadily declined to 270 *tonnes in April*, 1968

and 138 *tonnes in April,* 1969. Thus, a major portion of the expenditure incurred in setting up capacity for 1000 tonnes of manganese steel crossings was avoidable. The expenditure booked upto March, 1969 for the Steel Foundry as a whole for 10,000 tonnes capacity is Rs. 5.92 crores (figures not available separately for the manganese steel crossing section).

3.23. The performance of the Steel Foundry in regard to the manufacture of manganese steel crossings has not been satisfactory. The total quantity of manganese steel crossings manufactured during 1967-68 and 1968-69 were 99 tonnes and 198 respectively as against the installed capacity of 1000 tonnes and the reduced target of 350 tonnes per annum. The quantity of crossings manufactured and quantities rejected during the period from 1966-67 to 1968-69 are as below:—

Year	No. of crossings manufactured	No. of crossings rejected	Percentage of rejection
1966-67	205	129	65%
1967-68	184	92	60%
1968-69	400	131	33%

3.24. The value of the castings rejected outright during the three years from 1966-67 to 1968-69 is Rs. 8.41 lakhs.

3.25. The cost per unit of good casting has also gone up as indicated below:—

Size of crossings	Estimated cost per crossing	Cost per unit of good crossing
	Rs.	Rs.
1 in 20	3836·00	8333·80
1 in 16	3181·00	6889·30
1 in 12(90R)	2283·00	3920·40
1 in 12 (52 Kgs.)	2263·00	4056·50
1 in 8½	2726·00	3131·80

3.26. The Ministry of Railways (Railway Board) stated (December, 1969) that there has been no special investment exclusively

for manganese steel crossings except for heat treatment furnaces and moulding boxes valued at about Rs. 10 lakhs and that the moulding and other shops' capacity originally earmarked for manganese crossings is being utilised for the production of other medium and large steel castings. It may be mentioned that load available for the Chittaranjan Steel Foundry as a whole is much less than the installed capacity and the actual out-turn is consistently less than the target production of 850 tonnes per month. Utilisation of manganese steel crossing section for production of other castings has, therefore, to be viewed taking into account the fact that the capacity of other sections is also being underutilised. If the planning for the manganese steel crossing section had been done with adequate data regarding the sustained requirements, the overall capacity of the Steel Foundry could have been planned at a lower level than 10,000 tonnes per annum and the overall capital investment also could have been less to that extent.

3.27. Regarding the high percentage of rejection, the Ministry stated that the performance has to be viewed in the light of the experience and know-how already available in the country and that heavy rejections in the initial stages of development of highly specialized castings are inevitable. It may be mentioned that the foundry was established under collaboration with a foreign firm and the collaboration agreement provided for training of adequate number of personnel as well as deputation of collaborator's technicians to Chittarajan Locomotive Works for imparting technical know-how. Even after four years of development, the rejection is not less than 25 per cent.

[Paragraph No. 19. Audit Report (Railways), 1970]

3.28. According to Audit, on the advice of the collaborators, the Railway Board decided in March, 1961 to enhance the capacity of the Chittaranjan Steel Foundry to 10,000 tonnes for which a supplementary agreement was signed in November, 1963. From the information furnished to the Committee it is seen that the original estimate for establishment of 7,000 tonnes capacity steel foundry was Rs. 3.70 crores. The initial estimate for 10,000 tonnes steel foundry was Rs. 6.30 crores but the final estimate went upto Rs. 6.63 crores. The additional capital investment for setting up a 10,000 tonnes Steel Foundry as against 7,000 tonnes foundry planned earlier was of the order of Rs. 2.93 crores. Similarly the original remuneration to be paid to the collaborator was fixed at £1,00,000 but this amount was increased to £7,45,000 following a decision to set up a 10,000 tonnes foundry instead of 7,000 tonnes foundry.

3.29. During evidence the Committee asked for the reasons for increasing the capacity from 7,000 tonnes to 10,000 tonnes. The Chairman, Railway Board replied:

> "There are various reasons for it. One was that there was an acute shortage of steel castings in the country at that time. In fact that was the time when we were thinking of additional foundries and at time we had to undertake the load of steam locomotives, diesel locomotives, electric locomotives, and of course, incidentally a provision was made for the crossings. The idea was that if and when the loads for steam locomotives start coming down, we would be able to convert the foundry to the manufacture of steel bogies for our wagon stock. That was the explanation at that time and we decided to increase the capacity to 10.000 tonnes."

3.30. Justifying the need for increasing the capacity, another witness stated:

> "In 1959, against the normal requirement of one lakh, the installed capacity at that time was about 40,000. Later on the requirement went up to 2½ lakhs and the capacity trailed behind to 50 to 60 thousand. This is an all-India figure. We were short of capacity and we were finding difficulty in getting steel castings from outside and so it was felt that it would be necessary to increase the capacity to 10,000 tonnes. In fact we wanted to put up another foundry at Naini of 10,000 tonnes capacity which we later on stopped but we may start again one of these days, if the need for more casting comes up. We were mentioning about the actual capacity of Chittaranjan. We had reached in 1968-69 8,715 tonnes in the matter of tonnage, but if this is converted into the amount of work done on the basis of man-requirements, then in 1969-70 it would come to more than 8,800. The equated tonnage would be much more because the product mix has changed considerably."

3.31. When the Committee pointed out that even now the installed capacity of the Foundry had not been fully utilised, the Chairman, Railway Board stated:

> "Probably some impression has been created by our not providing enough data to the Audit that the foundry capacity is not but a melting capacity. The 10,000 tonnes is the

maximum melting that we will be able to do. Now if with this melting, you go on casting solid bars, the capacity will be fully utilized. If the composition had remained the same, 5000 for diesel so much for electric and like that, we would have probably got the 10,000 capacity, but the reduction of casting will have to be done because the nature of casting is becoming more and more complicated. By that I mean that the minor requirement for a particular casting is increasing. Although I have got the melting capacity, I have not got the casting capacity."

3.32. The difference between the melting capacity and the casting capacity of the Chittaranjan Steel Foundry has been explained in the note reproduced below:

"The original estimate for the Steel foundry at Chittaranjan envisaged a production of 10,000 tonnes of steel castings per year with the following break-down :

(a) Steam locomotive castings	5100	tonnes
(b) Electric loco castings	350	tonnes
(c) Diesel loco castings	2850	tonnes.
(d) Manganese steel points and crossing scastings	1000	tonnes
(e) Castings for maintenance of rolling stock	700	tonnes
	10000	tonnes

With the tapering of steam locomotive production, however, the Chittaranjan Steel Foundry was called up to do lesser and lesser quantity of castings for steam locomotives and more for diesel and electric locomotives. This meant taking on a higher percentage of lighter and intricate castings required for diesel and electric locomotives compared to the heavier castings required for the steam locomotives and the man-hour castings per tonne of castings increased considerably. On the basis of the man-hour content in the present product mix of castings produced by CLW, the present level of outturn of 6.364 tonnes during 1969-70 is equivalent to an outturn of 886 tonnes when converted to equivalent manhour content for steam locomotive castings.

Taking the available moulding and core making capacity with the present product mix the present casting capacity may be estimated as 7,500 to 8,000 tonnes per annum."

3.33. The break-up of the capacity given in the above note indicates that 5,100 tonnes of castings for steam locos had been planned. Asked whether the proposals regarding progressive dieselisation and

electrification had been taken into consideration before fixing this target, the Chairman, Railway Board stated during evidence: "Dieselisation means reduction in steel casting requirement for which provision was made of 5000 tonnes. That reduction would taken out by increase in the bogies of the diesel and the electric locomotives plus our contemplation of changing our bogies, which are now fabricated bogies, in these bogie wagons with a cast steel bogie. That is why this provision was made."

3.34. According to Audit, "This break up of the capacity implied that steam loco production would continue at the maximum level although proposals for progressive dieselisation and electrification were under active consideration and implementation right from 1957 and 1960 onwards. The schemes for progressive dieselisation and electrification culiminated in the decision of August, 1964 to taper down steam loco production, which resulted in the load prospects of the steel foundary falling down to almost half of the installed capacity. (According to the programme envisaged, steam loco production would completely stop by 1970-71). As a result of special efforts made by the Railway Board and Chittaranjan Locomotive Works Administration to find alternative load in the shape of castings which were not originally planned for, the load availability has improved and the actual production had reached 7718 tonnes in 1967-68 and 8602 tonnes in 1968-69, whereas according to the original targets, the Chittaranjan Steel Foundry should have reached the full capacity production *i.e.* 10,000 tonnes annum by September, 1966."

3.35. The Committee drew attention to the observations in the Audit para that 'the provision for 1,000 tonnes capacity for manganese steel crossings was made on an *ad hoc* basis without any detail or break-up in terms of angles of crossing, section of rails or weight of castings as a minimum standard requirement.' Explaining the position, the Chairman, Railway Board stated during evidence: "This requirement of steel crossings was *ad-hoc*. Our requirement of steel crossings was *ad-hoc*. Our requirement of crossings today is of the order of 4,000 tonnes of broadgauge and about 900 tonnes of metergauge. At that time, manganese steel crossings could be used only for widened sleeper layouts. The widened sleeper layout requirement is about 1600 tonnes approximately. So, we had to provide for for about 1000 tonnes assuming that progressively, as and when we can, we will be using only steel crossings to the maximum extent possible."

3.36. Asked what was the actual requirement of Railways at present of the manganese steel crossings, the Chairman, Railway Board replied: "Today the position is that we are taking only 1500 tonnes of manganese steel crossings and not more because we do not want to use these crossings as much as we had thought at that time because putting manganese steel crossings in these areas—yards and things like that—is not so easy, especially the bigger sizes namely 1 in 20 and 1 in 16 which I am afraid we will not be able to use just now. We will have to bring in their use, much later—because we have some other things to be done for which we are not ready. So we have reduced their demand for the time being."

3.37. In a written note furnished to the Committee, the Railway Board have stated: 'The use of cast manganese steel crossings is necessarily limited as they can be used only with wooden sleeper assemblies, the supply of which is restricted. The indents places for these crossings on C.L.W. for the last 3 years and the supplies made are indicated below:—

	No. indented	No. supplied
1967-68	910 (including back-log upto 1966-67)	46
1968-69	—	262
1969-70	395	241

3.38. According to Audit para the manufacturing programme of the Manganese Steel crossing section of the Chittaranjan Steel Foundry has been switched over almost wholly to 1 in 3½ and 1 in 12 sizes and a small number of 1 in 16 size crossings. The Committee enquired about the Railway Board's estimate of the inescapable need of cast steel manganese crossings of the smaller dimension. The Railway Board have furnished the following note in reply:

> "Since the use of cast manganese steel crossings of smaller dimensions is not essential but only desirable in such locations as busy passenger and goods yards, the question of etimating the inescapable need of such crossings has not arisen yet. This would perhaps be taken up at a stage when the availability of wooden sleeper layouts can be precisely worked out after meeting the demands of track circuiting etc."

3.39. As regards the use of Manganese steel in the manufacture of crossings of 1 in 12 and 1 in 8½ sizes, it has been stated by the Railway Board:—

> "The use of cast manganese steel crossings is neither inescapable nor essential in 1 in 12 and 1 in 8½ turnouts. A cast manganese steel crossing, however, would have twice the life of an ordinary steel but up crossings. The use of such crossings for 1 in 12 and 1 in 8½ turnouts in busy passegers and goods yards also provided trouble-free service, as conventional built-up crossings require frequent reconditioning by welding even during their shorter life span."

3.40. The Audit para states that in the initial stages of laying out the Foundry, the Railway Board has decided that bigger crossings of 1 in 16 and 1 in 20 size should initially be manufactured and for handling crossings of these bigger sizes bigger furnaces for heat treatment had to be designed. Asked to state the reasons for ordering crossings of this size, the Chairman, Railway Board replied "One in 16 and one in 20 crossings allow faster running over the points of crossing when the train goes into the loopline. When the train goes into the loopline over 1 in 10 and 1 in 12 crossings, the speed is limited to 16 kilometres. If we use 1 in 16 this speed can be increased to 30 kilometers. We are therefore contemplating using in wayside stations so that we could get a little better speed when the train takes the loopline but we found that extensive use of these is not possible—or rather that we should not spend this money just now because we have got much more pressing demands on our money. So, we have slowed down their use now but in future we will have to make use of them."

3.41. The Committee, however, pointed out that even though there was not much demand for these crossings of bigger sizes, priority was being given to their production. To this the Chairman replied: "....we had already altered that position. Very soon we wanted to develop. Originally we gave them to develop these crossings because this was the difficult casting. So we wanted them to learn this casting first. By using these things in the way side facing point we are dealing with all these developing projects and would get a better speed. But later on, we found that the total cost would be more because this needs a longer lead. So we stopped this. We have curtailed the use of this material very considerably from the point of view of economy." He added, ".....they continue to give priority to the development of these sizes of crossings because this is the most difficult casting out of the whole lot of crossings."

3.42. From the information furnished to the Committee the following note was recorded by Joint Director (Track) in one of the departmental files:

> "It is necessary also at this stage to indicate what seems to have been the background to Board's repeated emphasis on taking up manufacture of 1 in 16 and 1 in 20 H.M.C.S. Xings in preference to 1 in 12; and this was:
>
> (a) An impression was being gained that Messrs Lloyd were perhaps not showing adequate interest in the development of 1 in 16 and 1 in 20 series and in fact at one stage it was even felt that the firm was not in a position to impart training to our trainees, in the manufacture of manganese steel crossings particularly of 1 in 16 and 1 in 20 type.
>
> (b) The Board were reluctant to develop 1 in 12 series in preference to 1 in 16 and 1 in 20 because after the setting up of the Cast Steel Foundry, Chittaranjan they wished to ensure, as far as possible that a situation calling for import of CS Xings, which could only be in 1 in 16 and 1 in 20 series should not arise.
>
> (c) There is nothing on record from which a conclusion that the preference for 1 in 16 and 1 in 20 series had anything to do with the size of requirement, can be drawn."

3.43 To a question whether the Railways still required these bigger size crossings the Chairman Railway Board, replied: "No Sir, if we had not deviated from the policies as framed originally, we would have used them in the way side facing points but because the total cost was increasing and we would not derive any benefit just then, we thought of suspending its use."

3.44. The Committee enquired whether the economics of manufacturing bigger sizes of crossings was examined. It was stated in reply: "Sir, the question of life part was gone into because from the point of view of life part, it is better to develop them so that there may not be any repair. But there were other implications *i.e.* that we had got to have all the facing points much longer and this part was not probably expected. The realisation came when we started using them. That is where we could have done 22 to 50 ft. the total crossing will be needing now 2800 and 9000. So we thought we cannot afford this now. That is why the slowing down of its use."

3.45. The Committee were informed that "no capacity has been built up for manufacture of cast manganese steel crossings either in the private sector or in the railway workshops other than C.L.W." The present load as on 30-9-70 on the C.L.W. for manganese crossing is stated to be approximately 300 tonnes *i.e.* 10 months' load with a rate of production of 30 tonnes per month.

3.46. About the future prospects, it has been stated by the Railway Board that it is proposed to place an order at the rate of approximately 350 tons of manganese crossings per annum on C.L.W.

3.47. The Audit have, however, pointed out that "The load available for the smaller size crossings was assessed at 305 tonnes as against the installed capacity of 1000 tonnes; but the actual availability of the load is much less. The load position of the manganese steel crossings section is as follows:—

Load as on	Tonnes
June, 1969	75
September, 1969	177
December, 1969	153
March, 1970	247

The total quantity of fresh orders received for manganese steel crossings during 1969-70 is only 205 tonnes."

3.48. When the Committee pointed out that the estimates regarding the provision of 1,000 tonnes capacity for cast steel manganese crossings appeared to be over-optimistic and there was no necessity for having 1000 tonnes capacity, the Chairman, Railway Board stated, "True, but supposing I had asked for 950 tonnes that would not alter things very much because, whether it is 950 to 1000 there would be very little difference in the cost. The only point you can raise is that we have provided for a few of the ovens to be taken into the bigger crossings. You could say that we should have avoided this provision in the beginning. That is the only mistake we have done, nothing extra."

3.49. The Committee drew attention to the note written by the Joint Director (quoted in para above) and enquired whether the impression that M|s. Lloyds were not showing adequate interest in the development of 1 in 16 and 1 in 20 crossings, was correct. The

representative of the Railway Board stated during evidence: "I did not say that they were manufacturing 1 in 16 and 1 in 20 size crossings. What I said was that they had manufactured manganese steel crossings which means that they had the capacity and the knowhow for casting manganese steel crossings was known to them. ....The factual position is that that this is the information we have obtained from Lloyds that they were in a position to manufacture these crossings."

3.50. The Committee were informed during evidence that against normal rejection rate of 10 to 15 per cent, the percentage of rejections of the manganese steel crossings in the crossing section of the Foundry was about 25 per cent. The Committee enquired about the reasons for the high percentage of rejections inspite of the technical guidance from the collaborators and training of personnel at the collaborator's works in U.K. The witness stated, "This manganese casting has a very low range of pouring temperature and therefore it has got to be cast within a particular time and within a particular range of temperature. We have had a lot of difficulties in casting this. But now the rejections have gone down. The total rejections in the steel foundry has gone down to 5 to 7 per cent but on the manganese side we are still having 25 per cent. This was very much higher. When we started, it was 60 per cent. The tolerance in these crossings is very low and rectification is very difficult because it is a very hard steel. That is the reason why the life of this steel is more and if there is any slight error in the process, it cannot be rectified unless we remelt the same."

3.51. In a written note furnished at the instance of the Committee, the Railway Board have stated:—"Our Technical collaborators with their background of over a hundred year in the foundry field had a wide experience in the manufacture of various types of steel castings. It is true that C.L.W. technicians were trained in the Collaborators' Works and that the Collaborators deputed their technicians for training Chittaranjan Locomotive Works staff and for establishing production at C.L.W. However, the following facts have to be taken into consideration in examining the high percentage of rejection of manganese steel crossings manufactured by Chittaranjan Steel Foundry.

(2.1) The manufacture of steel castings in a very difficult technological processes; this country has been manufacturing grey iron castings for over 100 years and is now in a position to manufacture all

types of intricate grey iron castings. As regards steel castings, the experience available in the country is limited in the sense that the first steel foundry set up in the private sector was established in the year 1921 by M|s. Bhartia Electric Steel Co. Ltd.; this firm could only undertake manufacture of simple steel castings till the firm went into collaboration with foreign manufacturers and modernised their foundry in the year 1960.

(2.2) Subsequently, a modern steel foundry was set up by Telco in the year 1954—56 for the manufacture of steel castings of selected types. Thus, the development of technology for manufacture of steel castings in India is of recent origin and the total knowledge available in the country for manufacture of intricate steel castings is even now very limited.

(2.3) Knowing the limitation of the Steel Foundries available in the private sector, this Ministry had set up a steel Foundry C.L.W. during the year 1961. This Steel Foundry was set up primarily to manufacture steel castings for steam, electric and diesel locomotives and at the same time manufacture manganese steel crossings. Before the staff in the steel foundry could settle down in developing manganese steel crossings, bulk of the supervision had to be diverted in developing manufacture of Co Co bogies which are required for the production of diesel and electric locomotives.

(3) Besides, these factors mentioned above, it may be mentioned that the manufacture of manganese steel crossings is a specialised technique and even in the whole world there are only a few firms who undertake manufacture of manganese steel crossings. As an example in U.K., there is only one firm M|s. Edger Allen and Co. which supplies the bulk of the requirements of manganese steel crossings for the British Railways.

(4) The development of manganese steel crossings require not only training of staff in this particular job but it also requires vast experience. It is the absence of this experience which has caused difficulty in C.L.W. in bringing down the rejection percentage to a desired level.

(5) Heavy rejections in the initial stages of the development of highly specialised castings are inevitable. If a certain amount of extra expenditure has been incurred for the development of such an item, it should not be considered a loss to the administration. With tremendous efforts, perseverence, constant and attention that have

given to the development of these highly complicated castings, progressive success has been achieved which can be seen from the trend of rejections of these castings given below :—

Period	Percentage of rejection
1966-67	65%
1967-68	50%
1968-69	33%
1969-70	25%

It is, therefore, correct to conclude the rate of rejection has been steadily coming down indicating that the performance has been steadily improving.

(6) In regard to the reduction in the rejection percentage on account of the limited experience on the Indian Railways in this regard, there is hesitancy in allowing welding of even minor defects on the top surfaces of the crossings with the result that it has not been possible to bring down the percentage of rejection to less than 25 per cent on an average. This matter has been under examination by the R.D.S.O. and 12 crossings of 1 in 12, 90-R turnouts, which had been welded on the running surface were given to the Eastern and the South Eastern Railways for trial purposes in September 1967 and it is understood that although these crossings have been in service now for about 1½ years, no adverse reports have been received so far. With the experience gained on the use of manganese crossings which have been rectified by welding, the question of allowing rectification by welding to the extent permissible is being examined and it is expected that the rejection percentage would be brought down further."

3.52. The Committee note that the actual production in the Chittaranjan Steel Foundry, even after providing alternative load in the shape of castings which were not originally planned for, is below the full capacity production. Against the 10,000 tonnes capacity targetted to be reached by September, 1966, the actual production had reached 7718 tonnes in 1967-68 and 8602 tonnes in 1968-69.

3.53. The Committee note that as against the installed capacity of 1000 tonnes, the annual target production of the manganese steel crossings section of the Steel Foundry has been scaled down to 350 tonnes only. Even then the actual availability of load per annum has been much less. The total quantity of manganese steel crossings manufactured during 1967-68 and 1968-69 were only 99 tonnes and 198 tonnes respectively. Similarly the total quantity of fresh orders received for manganese steel crossings during 1969-70 was only 205 tonnes.

3.54. The Committee further note that in the initial stages the production of bigger sizes of crossings like 1 in 20 and 1 in 16 crossings was taken up as the comparative usefulness of manganese crossings over built-up crossings in these sizes is far more than 1 in 12 and 1 in 8½ sizes. However, the production is now concentrated on 1 in 12 and 1 in 8½ sizes in view of the smallness of the orders for the bigger size crossings.

3.55. The Committee also note that as stated by the Railway Board "the use of cast manganese steel crossings is necessarily limited as they can be use only with wooden sleeper assemblies, the supply of which is restricted and the use of cast manganese steel crossings of smaller dimensions is not essential but only desirable."

3.56. The Committee are constrained to observe that before planning of capacity for the manufacture of manganese steel crossings at the Chittaranjan Steel Foundry, no detailed assessment of the sustained requirements of different sizes of crossings was made nor the financial and technical implications of providing manganese steel crossings in the yards etc. adequately examined.

3.57. The Committee would like the Railway Board to make a thorough enquiry as to why the capacity of the manganese steel crossings section as also the overall capacity of the Steel Foundry are not being fully utilised and have not reached the optimum stage in production and to initiate remedial measures.

3.58. The Committee would also recommend that sustained efforts should be made to bring down the present rate of rejections of crossings (over 25 per cent) to within the normal rejection rate of 10 to 15 per cent.

South Eastern Railway—Loss in manufacture of unsuitable mechanical stokers.

Audit Paragraph

3.59. With a view to improving the haulage capacity of steam locomotives, the Railway Board imported two mechanical stokers in March, 1959 and these were fitted on two W.G. locomotives for conducting trials. Before the conclusive results of the trials were available, the Railway Board placed orders in September, 1960 for manufacture of 20 mechanical stokers on the Kharagpur workshop of the South Eastern Railway at an estimated cost of Rs. 30 thousand per stoker. Against this order seven mechanical stokers were turned out and fitted to the locomotives during the period from May, 1966 to March, 1968. The performance of these stokers was not found satisfactory and instructions were issued in June, 1968 for utilisation of the locomotives fitted with the mechanical stokers in light services only. After incurring an expenditure of Rs. 8.43 lakhs to end of November, 1968 on manufacture of the seven stokers, manufacturing components for another three stokers and procurement of stores for the remaining ten stokers, the scheme of manufacture of the mechanical stokers was suspended.

3.60. The Railway Administration stated (August, 1969) that manufacture of the mechanical stokers was suspended, as due to dieselisation and electrification their need for use in the steam locomotives receded and also because their performance was not found satisfactory. It may be stated that dieselisation and electrification were introduced on the Railway as early as 1958 and 1960 respectively as such the administration was aware of the developing change in traction before the manufacture of the stokers was undertaken. Despite the receding trend of steam traction as many as 413 and 387 locomotives were in use on the railway during 1967-68 and 1968-69 respectively, which would indicate there was enough scope for using the mechanical stokers. The suspension of manufature of stokers was thus primarily attributable to the unsatisfactory performance of the seven stokers. The scheme of departmental manufacture of twenty mechanical stokers undertaken before judging the results of trial with the imported ones was resulted in infructuous expenditure of Rs. 8.43 lakhs.

[Paragraph No. 20—Audit Report (Railways), 1970.]

3.61. According to the information furnished to the Committee, it is seen that the introduction of mechanical stokers for some steam engines was planned with a view to ensure steady steaming and performance of such locos, independent of the efficinecy of the fireman

especially in the context of inreasing supplies of lower grade of non-coking coal which call for higher firing rates beyond the hand fire limit. The Railway Board have stated that this was recommended by a team of American Surveying Engineers who studied the problem of increasing movement capacity on the Indian Railways in the year 1957. The Expert Coal Committee had also recommended that in the context of deterioration in the grade of coal then available owing to coking coal being earmarked for metallurgical purposes, mechanical stokers should be fitted on goods locomotives in order to counteract any fall in their hauling capacity.

3.62. In regard to the result of trial conducted with the two imported stokers, the Railway Board have furnished the following note:

> "The 2 imported mechanical stokers were fitted on WG locomotives in March, 1960 and December, 1961 respectively. Initial trials carried out in 1961 indicated that certain modifications were necessary to the stoker equipment for better efficiency. Subsequent trials carried out by South Eastern Railway also did not yield any firm conclusion. One of the locos fitted with the imported stoker was transferred to the Central Railway in March, 1962 and was given a few test runs. In these trials, it was noticed that round hole table grate needed modifications to provide liberal air space for better efficiency. This locomotive was utilised for control trials by R.D.S.O. during February—June, 1964. Control trials by R.D.S.O. revealed that the increase in the rate of firing beyond 3500 Kg/hr. besides reducing the boiler efficiency adversely affected the cylinder lubrication because of higher super-heated temperature of steam. In view of the considerable experience gained in the working of mechanical stokers it was decided in August, 1966, to discontinue the trials."

3.63. The Committee enquired why were orders for manufacture of 20 mechanical stokers placed on Kharagpur workshop in September, 1960 by which time the trials of the W.G. locomotives fitted with two imported mechanical stokers had not been concluded. The Committee also desired to know whether Railways had any past experience of mechanical stokers. The Railway Board have stated in reply:

> "The mechanical stokers have been used extensively in other countries and therefore they are by no means an untried innovation. In this connection, it is pointed out that the principle of mechanical stoker was not on trial but the

size of stokers as suitable for WG locomotives was under trial. With a view to develop indigenous capacity for this type of equipment, an order for the manufacture of 20 Nos. was considered necessary both from the point of economy in the manufacture and from the point of view of spread over of developing technique."

"Railways also did have some experience of mechanical stokers fitted on some other class of locomotives *viz.* XE type. Railways, however, did not have experience of mechanical stokers for WG class of locomotives."

3.64. It has been stated in the Audit para that although orders for manufacture of 20 mechanical stokers were placed in September, 1960, seven mechanical stokers were turned out and fitted to the locomotives during the period from May, 1966 to March, 1968. Asked to state the reasons for the delay of 6 to 8 years in the manufacture of these mechanical stokers, the Railway Board stated that the stokers could not be completed within the scheduled time due to certain difficulties in getting supply of steel castings from Ajmer Workshop of the Western Railway as well as some trade items.

3.65. It has also been stated that the performance of the stokers was not found satisfactory and in view of the unsatisfactory performance of the stokers, it was decided to use them in light services.

3.66. Explaining the reasons for suspending the work on the manufacture of further stokers and how the components and stores already procured are proposed to be utilised, the Railway Board have in a written note stated:

"As already indicated, the initial trials were not found satisfactory. The performance of the stokers was under investigation with the object of evolving suitable remedies. Simultaneously, it was considered prudent to suspend manufacture of additional stokers until remedial measures were evolved so as to incorporate the requisite modification in the manufacture of remaining stokers. The components can be used as spares for the stokers already manufactured. However, the matter regarding actual utilisation of the components for the remaining 13 stokers is still under consideration."

3.67. According to the Audit para, the Railway Administration stated in August, 1969 that manufacture of the mechanical stokers was suspended, as due to dieselisation and electrification their need for use in the steam locomotives receded and also because their per-

formance was not found satisfactory. It has now been stated by the Railway Board that "The dieselisation and electrification were introduced on South Eastern Railway in the years 1958 and 1961 respectively. However, at that time the extent of future dieselisation and electrification was not quite clear and every possible innovation which would have enhanced capabilities of steam traction was given due consideration".

3.68. From the information furnished to the Committee, it is seen that the number of locomotives on the South Eastern Railway on which mechanical stokers could be fitted are as under:

(I) Locomotives used for hauling goods services.	221
(II) Locomotives used for inferior services.	288

3.69. The Committee were informed that the capacity created for the manufacture of the stokers was being fully utilised by undertaking the following items of developmental work:

"(i) Manufacture of MFD equipments.

(ii) Fitting of Air Brakes.

(iii) Fitment of C.B. Couplers on 'WG' locomotives.

(iv) Fitment of Giesel Oblong Ejector.

(v) Manufacture of 26 Nos. of vacuum operated engines for Turn Tables.

(vi) Fitment of vestibules in BG coaches.

(vii) Manufacture of one Axle Oil Refining Plant etc."

3.70. The Committee are not convinced by the explanation offered by the Railway Administration that the manufacture of mechanical stokers was suspended as due to dieselisation and electrification their need for use in the steam locomotives receded. Even at present the South Eastern Railway has as many as 509 steam locomotives.

3.71. As has been pointed out by Audit the suspension of manufacture of stokers is primarily attributable to the unsatisfactory performance of the seven stokers manufactured by the Railway. The Committee are informed that trials carried out by South Eastern Railway with the imported stokers did not yield any firm conclusions. At the same time it has been stated that Railways did not have any prior experience of mechanical stokers for WG class of locomotives.

3.72. The Committee are unhappy to note that the Railways proceeded with the manufacture of as many as 20 mechanical stokers without having any previous experience and without waiting for the conclusive results of trial with the imported stokers, thereby incurring an infructuous expenditure of Rs. 8.43 lakhs.

3.73. The Committee need hardly emphasise that before embarking on any new Project there should be adequate planning and the pros and cons should be carefully gone into. The Committee would like the Railway Board to examine whether the capacity rendered surplus following suspension of manufacture of stokers is being fully utilised.

IV

MAINTENANCE AND UTILIZATION OF ASSETS

Corrosion in I. C. F. Coaches

Audit Paragraph

4.1. The Schlieren type all steel integral light weight coaches manufactured at the Integral Coach Factory are to a specification jointly evolved by the Research Designs and Standards Organisation of the Indian Railways and a Swiss firm. Coaches of Schlieren design were imported and put into service in 1951. Coaches of similar design manufactured at Integral Coach Factory were put into service from October, 1955. The coaches of this design incorporated a number of pressed steel sections of thin sheets in the construction of the shell. The sheets are considerably stressed at the design of this type of coach is based on the principle of a "self supporting structure". The trough floor was designed to take 70 per cent of the buffing force and hence needed particular attention to safeguard against the initiation and spread of corrosion to places which were not easily accessible for inspection and attention. A panel of Senior Mechanical Engineers appointed to make a technical evaluation of the Schlieren design reported in November, 1951 that the Schlieren type coaches required a high standard of maintenance, and called for corrosion resisting steel for all components, a full and effective anti-corrosive treatment at the time of manufacture and periodical stripping, inspection, cleaning and anti-corrosive treatment of the interior parts at regular intervals so that each component of the coach would retain practically its original strength throughout the entire life of the coach.

4.2. The Standing Corrosion Committee set up by the Railway Board discussed the problem of corrosion of I.C.F. coaches in their first meeting held in September, 1956 and recommended that the Railways should make a thorough examination of the Schlieren coaches and report whether any corrosion was taking place. The recommendation was forwarded to the Railways in February, 1957. First reports of corrosion of I.C.F. coaches were received in early 1959. With a view to assess the incidence of corrosion, four of the Schlieren coaches (three built in Switzerland and one assembled at I.C.F.) were withdrawn from service and subjected to detailed examination at the Integral Coach Factory by a Special Committee

in June, 1959. The Special Committee recommended certain remedial measures like modifications to the turn-under, providing for larger openings for the effective drainage of accumulated substances and water, improved painting schedules, and modifications to the body side doors. The Committee did not, however, recommend any modifications or improvements to the trough floor under the lavatory or regarding prevention of leakage of water from the floor which proved to be the most vulnerable spot for corrosion. The modifications to the turn-under and body side doors recommended by the Special Committee were incorporated in the coaches turned out from Integral Coach Factory from 1960 onwards; but the Zonal Railways were not advised to carry out the modifications on the coaches built before 1960. In May, 1961, the Carriage and Wagons Standards Committee recommended that the question of Railway Workshops carrying out the design modifications on the coaches in service should be examined. This recommendation was forwarded by the Railway Board to all the Railways in December, 1961, but no specific directives were issued to the Railways to carry out the modifications. On receipt of further reports of corrosion, the Integral Coach Factory Administration circulated in February, 1963 to all the Railways certain remedial measures which included provision of drain holes at the bottom of the door pillars, provision of thicker skirting plates for the side wall with enlarged openings, application of bituminous water sealing compound at all timber joints in the flooring construction, additional cost of paints for the trough floor, proper drain holes for wash basins, bent lavatory chutes and deeper throats for lavatory pans. In December, 1963 coach alteration instructions were issued at all the Railways to provide enlarged drain holes in the turn-under of the body side walls and to rectify the corroded portion of the body side doors of the coaches. The instructions issued from 1957 to 1963 were thus of only general nature.

4.3. In April, 1965 the R.D.S.O. issued (at the instance of the Integral Coach Factory) a consolidated set of instructions to all Railways detailing the measures to prevent the incidence of corrosion. Modifications to the trough floor under the lavatories was contemplated for the first time in these instructions.

4.4. In October, 1966 an I.C.F. coach, while being hauled as an empty rake near Raichur station split up into two parts as a result of severe corrosion of the trough floor over the full width of the coach under the lavatories. This coach had been given P. O. H. only six to eight months prior to the accident. It was observed on examination of this coach that the condition of the trough floor under the lavatory area was not periodically inspected, repaired, cleaned

and painted, and that the corrosion of the trough floor and members below resulted from the seepage of water from the lavatory.

4.5. Coach alteration instruction for replacement of corroded trough floor below the lavatories was issued to the Railways by the Integral Coal Factory Administration in December, 1966. This was followed by a number of instructions from Integral Coach Factory, R.D.S.O. and the Railway Board to all the Railways in the months of March to July, 1967, calling for thorough examination of the trough floors during every P.O.H. and immediate action to carry out modifications under the lavatories with tubular structures and filling of trough floors with bituminised vermiculite. A seminar was also arranged in September, 1967 to stress the need for immediate action. In emphasising the need for urgent action to take steps to arrest corrosion, the Railway Board observed in April, 1967 that corrective steps laid down in the earlier instructions were not effectively implemented by the Railways. Corrosion and perforations on trough floor have been observed in the Integral Coach Factory coaches within 1½ years of service. Out of 5250 I.C.F. coaches put into service since 1955 upto April, 1968, 2442 coaches have been found to be severely affected by corrosion upto April, 1969.

4.6. The modifications and repairs to the corroded coaches are in progress on all the Railways. According to information so far available, 704 coaches have been repaired. For repairing 2442 coaches, the estimated expenditure is about Rs. 2.18 crores. The Ministry of Railways stated (December, 1969) that the cost of repairs is high because large number of coaches have to be repaired in a short period of time and in case the repairs had commenced earlier, the total cost would have gone down.

4.7. If detailed instructions or anti-corrosion maintenance and modifications to the trough floors and turn-under had been issued soon after the Integral Coach Factory coaches were put into service, by keeping a special watch on the not easily accessible locations prone to corrosion and if the Zonal Railways had exercised adequate care in maintenance and P.O.H. repairs, the incidence of premature corrosion in I.C.F. coaches could have been detected and effectively dealt with at the early stages in which case the extent of corrosion and the cost of repairing would have been considerably less. The changes in design necessary to deal with this problem could also have been incorporated in new coaches that were being built much earlier.

4.8. Regarding delay in the issue of detailed instructions for anti-corrosion maintenance and modifications, the Ministry of Railways (Railway Board) stated (July, 1969) that the need for issuing such instructions did not arise until service experience over a period of seven to eight years warranted the issue of such instructions.

[Paragraph No. 21. Audit Report (Railways), 1970]

4.9. The Committee enquired why no action had been taken on the recommendations made in 1951 by the panel of Senior Mechanical Engineers. The representative of the Board stated during evidence: "The Senior Mechanical Engineers were asked to examine this question. At that time, with the available experience, they had suggested that these coaches should be fitted with anti-corrosion steel and that we should apply anti-corrosion treatment to certain coaches. Further after 5 or 7 years the coaches should be checked. At that time we did not have sufficient experience to allow any recommendations being made on this."

4.10. The Committee pointed out that the trough floor which was designed to take 70 per cent of the buffing force needed particular attention but despite that no detailed instructions appear to have been issued for their proper maintenance. The representative of the Board explained:

> "59 coaches were dismantled and stripped. No corrosion was found on the trough floor. It was only found on the side doors. We know that the floor was carrying 70 per cent of the buffing force but it was not giving any corrosion. The first case of corrosion was reported in 1963. Even when the 4 coaches were stripped by the Committee in 1959, the trough floors did not show any corrosion. This is what the Audit have said and also accepted. Only in 1959, a Special Committee recommended certain remedial measures. Accordingly, we removed all the fittings and then removed all the interior panelling; on the floor we have got a steel trough, on top of it there are wooden battens and on top of that there is floor compound. If we have to check up the trough floor from inside, we have got to remove the floor compound, the battens and then come to the steel floor. This was done in 1959 and at that time no corrosion was reported. Therefore, these Senior Mechanical Engineers recommended that some of the holes should be enlarged and thicker size plates should be put on so that the corrosion may be less. These modifications were incorporated in all new builds. Meanwhile, all the original recommendations that

were made for applying anti-corrosive treatment were adopted."

4.11. The representative of the Board further clarified that no anti-corrosive treatment was adopted for the trough floor because 'this was found only for the first time in 1963 and by 1964 we could know the way to overcome this which we learned the hard way'. The representative of the Board also admitted that although no corrosion was noticed on the trough floors of the four coaches which were stripped by the Special Committee in 1959, there could have been corrosion on the trough floors of other coaches.

4.12. Asked as to what steps were taken after the corrosion was noticed on the trough floors of the coaches, the representative of the Board replied:

"Immediately when the trough floor corrosion was found by RDSO and the ICF., they had to work out modifications in order to overcome this defect. It was found that a complete change in the design was necessary i.e. the floor was to be built on tubes, wooden battens and then the flooring compound. So, the entire construction of the floor in the bath room was completely changed."

4.13. *As regards the time when modifications were made, the representative of the Board stated: 'That was changed since 1964. The modification order was issued in 1964 but it came into effect in April, 1965'.*

4.14. The Committee enquired whether in view of the climatic conditions in India and the profuse usage of water in the bath rooms and lavatories, any modification in the design of coaches was considered and made. In a written note furnished to the Committee the Railway Board have stated:

"The matter has been examined. It was felt that the incidence of corrosion in ICF coaches did not warrant any major change in the design of the coach as such. However, with a view to minimising eradicating corrosion as a result of profuse usage of water in the bath rooms, the design of the trough floor under the lavatories provided for drain holes in the initial design and subsequently it was modified to tubular structures so that very little water or moisture would accumulate and cause corrosion."

4.15. Asked about the details of the accident near Hyderabad in 1966, when a coach split into two parts, the representative of the Board explained:

"P.O.H. was done twenty months earlier to the accident. This coach was stabled actually for POH in Matunga but at that time due to bifurcation of Railways, it was being brought by a goods train from there to Secunderabad and on the way, the coach cracked and parted into two. Sir, we have about 7,000 coaches of this type in use. This is the only unfortunate accident."

4.16. In reply to a question whether the cracking up of the coach was due to corrosion only, the representative of the Board stated that 'cracking up was the result of corrosion'.

4.17. The Committee drew attention to the observation in the Audit para that POH of the coach which cracked up had been done only six to eight months prior to the accident. The representative of the Board while clarifying stated "This is a mistake. We ought to have informed them in time. The impression given was that this happened six months after periodic overhaul. This is a mistake which we should have corrected. Actually, the period involved was 20 months." This was subsequently confirmed in a written note which also added that "the coach was running overdue POH".

4.18. In a written note, furnished at the instance of the committee, the Railway Board have given the following data regarding the periodicity of overhaul of coaches:

"Periods for 'A' Schedule and 'C' Schedule for coaches are as under:-

'A' Schedule	Coaching stock (PCVs) & (OCVs) should be given a 'A' Schedule at intervals of 36 months.		(a) When complete rakes which include both integral and non-integral stock, are sent to shops, the period for 'C' Schedule should be on the basis of non-integral stock.
'C' Schedule	Between Successive 'A' schedules, 'C' schedules should be given at the following intervals.		
	Integral	*Non-integral*	
(i) Mails & Express Rakes	*12 months*	*9 months*	*(b) When complete rakes which includes both PCVs & OCVs are sent to shops,* the periods for *'C'* schedule for OCVs should be on the same basis as for the PCVs.
(ii) PCVs other than Mail & Express Rakes.	*18 months*	*12 months*	

(iii) Ocvs (i) which are being used on passenger rakes.			POH to be given alongwith the rest of the rakes on the same basis as the rakes.
	(ii) which are being used on goods services	No. 'C'	24 months Schedule.

4.19. The Committee desired to know the specific steps taken by Railways to equip their workshops and personnel for the maintenance of these coaches. The Railway Board have furnished the following note in this regard:

"(*a*)—(*i*)—A seminar on corrosion in Integral Coaches was held at I.C.F., Madras in October, 1967. It was attended by Foremen, Works Managers, & Dy. CMEs (C & W) of all Railways and the problem of corrosion was discussed in all its aspects and the various corrective measures and methods of repair were explored. The participants were also taken round the ICF and shown the parts of coaches which ordinarily get affected by corrosion.

(*a*)—(*ii*)—The R.S.O. issued a Manual for repair of the corroded parts of the coaches with a view to carry out proper repair to the coaches.

(*a*)—(*iii*)—The staff in the workshops who used to repair only wooden bodied coaches, have been and are being retrained as welders, fitters etc. So that they can undertake repair to steel bodied coaches during POH.

(*a*)—(*iv*)—A number of welding plants, Oxy/Acetylene cutting instrument etc. have been procured to equip the Railway workshops to undertake corrosion repair."

4.20. Regarding the comparative advantages of B.E.M.L. coaches and ICF coaches in so far as the corrosion was concerned, the representative of the Board stated during evidence:

"Their number is comparatively fewer. But there also we are finding corrosion. Now they are changing the trough floor. Unfortunately, in that case we cannot go to the tubular frame. We have to provide a channel frame .....We found as a result of our analysis—we have got a Standing Corrosion Committee which is examining this matter in great details—that this is a difficult problem

that we have got to face today. We are making sure that after the lapse of seven years time some modifications etc. are carried out to B.E.M.L coaches. Recent ones are giving us some amount of trouble. We are anticipating this by modifying them so that they may not assume an epidemic form. They have a different method of improving this. The ICF has been using blasting and anti-corrosive compounds; BEML use the hot phosphating process which of the two is better is nobody's guess—RDSO have been trying to analyse that. They have a team of experts—technical people—but the opinion is divided. We are trying to see which one of them is more effective under our conditions of working. We shall try and see if one is better than the other then we shall introduce that in all places."

4.21. The witness also added: "I don't think that B.E.M.L. coaches are better, But, by and large, there has not been very great difference." Asked about the conditions of the imported coaches, the witness deposed: "There too we have had to change the same items. In other countries they use either stainless steel or alloy steel. Stainless steel is a very expensive item. We cannot afford that. We are using alloy steel which is also imported since we cannot get it in this country. As I said corrosion is one of the biggest problems, I understand that a Committee is now being set up by the Planning Commission for investigation into corrosion not only on Railways but everywhere else. The other countries are of course spending millions of dollars on research work alone."

4.22. The Committee enquired whether there was any change in the estimate regarding the life of ICF coaches. The witness stated that the life was still 30 years but some modifications will have to be made and that they were confident to carry out those modifications.

4.23. The Committee were informed that all the pre-1960 coaches had been affected and required modification. As regards the big amount involved in the repairs of these coaches, the witness stated that in the cases of integral coaches if one part is removed the entire structure has to be changed to carry out the modification. In a written note the Railway Board have stated that "the maintenance expenditure on account of corrosion in ICF coaches has been incurred for the first time only after a period of 7 years of these coaches having been issued out and as such this factor should not lead to this conclusion that maintenance expenditure of these coaches is very high."

4.24. Asked whether any fresh appraisal of the position has been made and whether any new remedies are envisaged, the Railway Board stated:

> "The Railways have already put in a modified structure for the trough floor as evolved by R.D.S.O. The R.D.S.O. are at present engaged in the task of re-designing the window with a view to sealing the gaps so as to arrest corrosion on the pillar parts, side walls etc. The matter is also receiving constant attention with a view to detect any variations in the nature of the corrosion problem and suitable action, as an when necessary, will be taken."

4.25. The Committee are concerned to note that out of 5250 I.C.F. coaches put into service since 1955 upto April, 1968, as many as 2442 coaches were found to be severely affected by corrosion upto April, 1969. The repairs to these coaches are estimated to cost about Rs. 2.18 crores.

4.26. It is seen that although the need for very high standard of maintenance of these coaches was realised and emphasised even at the design stage, no detailed instructions were issued to the Zonal Railways as to how these coaches, which were very much different from the conventional coaches which they had been handling so far, should be maintained particularly to prevent the onset of corrosion. The Committee feel that, knowing fully well that the trough floor of these coaches was designed to take 70 per cent of the buffing force and that climatic and usage conditions in India were widely different from Switzerland from where Schlieren type coach concept was taken, the Railways should have kept close and more intensive watch in conjunction with I.C.F. and Research, Designs and Standards Organisation on the performance of these coaches. Had such care been taken the corrosion problem could have been forestalled by taking timely remedial measures.

4.27. The Committee desire that Railways should now take planned action without delay to repair 2442 coaches which are reported to be severely affected by corrosion.

4.28. During evidence the Committee were informed that the corrosion constituted a big problem and a Committee was being set up by the Planning Commission for investigation of the same. The Committee feel that the proposed committee, if not set up so far, should immediately be constituted and its terms of reference should inter alia cover a thorough study of corrosion problem in Railway coaches.

4.29. The Committee also desire that the work relating to re-designing of window to arrest corrosion on pillar parts, side walls etc. of the coach should be expeditiously completed by RDSO and effective remedial measures taken.

Western Railway—Avoidable Expenditure in the treatment of water for steam locos

Audit Paragraph

4.30. Water fed into the steam locomotives, if hard, has to be softened to prevent scale formation in the boilers. On the Western Railway, the old practice was to soften water externally through softening plants before feeding it to the locomotives. From 1956 the cheaper alternative of internal water treatment by adding a measured quantity of chemicals to the untreated water fed into the engine tender either through the fitment of a mechanical device alled 'dosing bear' or by manually dosing the chemicals was commenced. By October, 1964, 1401 locomotives had been brought under internal water treatment. 14 water softening plants were, however, continued to be operated upto 1967 and 1968. The cost of treatment by water softening plants was 0.79 paise per 1,000 gallons whereas the internal treatment cost was only 0.68 paise per 1,000 gallons. Treatment of water by costlier method of operating softening plants, when the cheaper method of internal treatment was possible, resulted in incurrence of extra expenditure of Rs. 1.59 lakhs.

[Paragraph No. 22—Audit Report (Railways), 1970]

4.31. The Committee were informed that a Water Treatment Committee was appointed by the Railway Board to go into the question of types of water treatment to be carried out on Indian Railways. This Committee recommended in March, 1966 that future extension of water treatment should as far as possible, be based on internal treatment. Only when the hardness of fed water exceeded 200 parts per million and where consumption for locomotive purposes at any individual station exceeds 1,00,000 gallons per day should there be external treatment.

4.32. The Committee desired to know whether any programme was drawn up for the progressive fitment of internal dosing gears and what was its actual implementation from year to year. The Railway Board furnished the following note:

"After the decision had been taken that future extension of water treatment should be internal, as far as possible, preferences was given to introducing the same on Rajkot

and Bhavnagar divisions where water trouble was severe. Orders were placed for automatic dosing gears on the trade and the cumulative progress regarding fitment year to year was as follows:—

1956	3
1957	90
1958	267
1959	298
1960	333
1961	334
1962	367
1963	374
1964	430
1965	492
1966	541
1967	670
1968	714

4.33. Asked whether pending fitment of dosing gears any programme was drawn up for manually dosing the water fed to locomotives, the Railway Board stated in a written note:

"Manual dosing of water into boiler was commenced pending fitment of dosing gears at those depots where staff already existed and where control on the dosage could be exercised. The progress of the number of locomotives brought under manual dosing year-wise is as follows:

1956	256
1957	322
1958	273
1959	245
1960	317
1961	442
1962	228
1963	735

1	2
1964	962
1965	951
1966	897
1967	708
1968	703."

4.34. The table below indicates the number of watering stations to be treated, the number of locos which required treatment, the number of locos given internal treatment and number of locos treated externally each year since 1956 to 1968.

Year	No. of the watering stations to be treated.	No. of Locos requiring treatment.	No. of locos given internal treatment either by fitment of dosing gears or manually.	No. of locos treated externally.
1956	214	1,226	259	967
1957	214	1,307	412	895
1958	214	1,401	540	861
1959	214	1,432	543	889
1960	214	1,404	650	804
1961	214	1,538	776	762
1962	202	1,578	595	983
1963	202	1,629	1,109	520
1964	189	1,657	1,401	256
1965	171	1,617	1,443	174
1966	155	1,600	1,438	162
1967	145	1,589	1,378	220
1968	131	1,575	1,417	158

4.35. It is seen from the above table that number of locos given internal treatment increased progressively year after year and the number of locos requiring external treatment decreased in the same proportion. At the same time the number of watering stations to be treated has gone down over the years. The 14 water softening plants were nevertheless continued to be operated upto 1967 and 1968. The Committee enquired why the 14 water softening plants could not be closed down as the cost of internal treatment was cheaper, than external treatment. In a written note furnished to the Committee, the Railway Board have stated:

> "Internal treatment of water by adding chemicals to untreated water in the engine tender can either be carried out through automatic hydro-static dosing gear or by manual dosing. In the former method, the compound to be added in the boiler is placed inside the dosing tank fitted on the locomotive which ensures automatic, consistent and correct dosing of the chemical into the engine tender in proportion to the quantity of water filled into the tender. Thus, the chemicals are charged into the dosing gear at the commencement of the trip and no further attention is required to be given thereafter throughout the trip. In the case of manual treatment, however, dosing is required to be carried out not only at the starting station but also at all intermediate points, where the engine takes water. As this would require provision of extra staff for this purpose, if dosing has to be properly ensured, the use of manual treatment is, unlikely to be cheaper than external treatment."

4.36. The number of locomotives undergoing water treatment of Indian Railways as on 30-6-1969 as also the number of locomotives fitted with automatic dosing gears is as follows:

Railway	No. of locos undergoing water treatment.	No. of locos fitted with dosing gear.
1	2	3
Central	532	111
Eastern	615	298
Northern	1159	488
North Eastern	642	262

1		2	3
Southern		870	332
South-Eastern		942	185
Western		1463	714
N.F.	441	441	324
South Central		486	343
TOTAL :		7150	3057

4.37. The Committee note that by 1964, 1401 locomotives had been brought under internal water treatment either through the fitment of dosing gears or by mannually dosing the chemical. The number of locos treated externally came down to 256 in 1964 from 967 in 1956. However, the 14 water softening plants continued to be operated for treatment of water upto 1967 and 1968 resulting in extra expenditure of Rs. 1.59 lakhs during the period. The Committee consider that with the progressive decline in the number of locos requiring external treatment, the water softening plants should have been closed down earlier.

4.38. The Committee find that out of 7150 locos on all Railways requiring treatment for softening of water only 3057 locos have so far been fitted with the dosing gears. Since the Railways have now several years of experience of working of dosing gears for softening of water for steam locomotives and the cost is also admittedly cheaper than of softening water externally through water softening plants, the Committee would like Railways to instal dosing gears or resort to manual dozing of chemicals on the remaining steam locomotives and save on the water softening plants if any, still junctioning on the Railways for boiler feed purposes.

South Eastern Railway—Avoidable Expenditure on Replacement of a Weighbridge

Audit Paragraph

4.39. The Railway Adminisrtation decided to replace the then existing 40 ton weighbridge at Bhaga Station with a new 100 ton weighbridge on the consideration that more and more BOX wagons were being put on the line and the existing weighbridge was not adequate to weigh BOX wagons. An order for supply of a 100 ton weighbridge was placed in April, 1963 and the estimate for the work amounting to Rs. 1.53 lakhs (including Rs. 1 lakh as cost of the new

weighbridge) was sanctioned in May, 1963. The weighbridge costing Rs. 1.09 lakhs was received in August, 1965, was installed in March, 1967 and was brought into use in May, 1967. However, in March, 1968 the Railway Administration decided to close down the weighbridge and arranged for weighment of wagons arising in the region, at the adjacent station Bhojudih, which was already equipped with a 100 ton weighbridge.

4.40. The Administration stated (August, 1969) that a declining trend of traffic at Bhaga was noticed in April, 1968 and the weighbridge was closed down with a view to achieve an annual saving of Rs. 1.78 lakhs. It was stated that wagons from Bhaga had in any case to pass through Bhojudih yard and no extra time was required at Bhojudih for weighment as the wagons while being classified had to pass over the weighbridge line and got weighed in the process. It may be stated that the average number of wagons weighed daily at Bhaga after installation of the new weighbridge there was more than those weighed there before and continued to be so till March, 1968 when it was decided to close it down. In fact, the Administration was aware as early as in January, 1965 that only a few collieries would despatch coal in BOX wagons from this region in future and it was better to weigh those wagons at Bhojudih. The installation of the new weighbridge at Bhaga in March, 1967 involving an outlay of Rs. 1.65 lakhs was, therefore, avoidable.

4.41. The Railway Administration have since decided in October, 1969 to reopen the weighbridge at Bhaga on the ground that traffic at Bhaga had increased. It has, however, been noticed that the total number of wagons that is being weighed at Bhojudih, including those diverted from Bhaga region, is not only well within the capacity of Bhojudih weighbridge but has in fact come down from 2,864 in August, 1969 to 2,162 in October, 1969.

[Paragraph No. 23—Audit Report (Railways), 1970]

4.42. The Committee observe from the Audit Para that in January, 1965, the Railway Adminisrtration were aware that only a few of the collieries were expected to despatch their coal in BOX wagons from the Bhaga region. They, however, proceeded with the installation of the weighbridge received by them in August, 1965 and brought it into use in May, 1967.

4.43. The Committee enquired whether the work could not have been deferred in view of the fact that the Railway Adminisrtation was aware that only a few collieries would despatch BOX wagons from Bhaga region. The Railway Board have stated:

"The reference in the Audit para that the Railway Administration were aware in January, 1965, that only a few collieries would despatch BOX wagons from Bhaga region is based on the Inspection Note of the Chief Operating Superintendent, South Eastern Railway, which reads as under:—

There is a proposal for installation of 100 ton W/Bridge at Bhaga. As only a few of the collieries are expected to despatch their coal in BOX wagons from this sphere in future it would be better if we weigh these loads on BJE weighbridge and Bhaga can be given a lower priority in installation of 100 ton weigbridge.

It would be seen that this Inspection Note did not rule out the provision of a 100 ton weighbridge at Bhaga but it was only made clear that in the scheme of priorities, Bhaga might be given a low place. In fact, such a low priority was assigned to Bhaga. But it so happened that when a 100 ton weighbridge was received in 1965, the other places having higher priority like Adra, Bilaspur and Waltair were still not ready for the installation of the weighbridge pending certain remodelling works. In this situation it was decided by the South Eastern Railway that this particular weighbridge, instead of being kept idle, should be installed at Bhaga."

4.44. Asked as to what were the consideration governing the closure of weighbridge in March, 1968 the Railway Board have stated:

"The South Eastern Railway administration felt that with the level of coal loading as then obtaining at Bhaga and Bhojudih the weighment work pertaining to Bhaga Depot could be managed at Bhojudih, and thereby the operating costs of the weighbridge at Bhaga saved and therefore took the decision of temporarily closing down the weighbridge at Bhaga to bring about savings."

4.45. The weighbridge was reopened in October, 1969. In this connection the Railway Board have stated:

"This step (closure in March, 1968), however, generated complaints about inordinate delay in weighment and issue of railway receipts occasioned by the work of weighment of wagons pertaining to Bhaga Depot having been transfer-

red to Bhojudih. In October, 1969, therefore, a decision had to be taken to reopen the weighbridge at Bhaga."

4.46. The Committee enquired whether the economy aspect had been taken into consideration before the decision regarding reopening of the weighbridge was taken. The Railway Board have stated;

"The main consideration for the reopening of the weighbridge at Bhaga in October, 1969 was to avoid the complaints about delay in the issue of Railway receipts as the anticipation that wagons of Bhaga Depot could be weighed at Bhojudih without any adverse repercussions did not prove to be correct. The concentration of weighment at Bhojudih yard was causing difficulties in the yard to handle the loading of two Depots in addition to the running of raw coal trains to Bhojudih washery and return empties therefrom and thus weighments were getting delayed, leading to wagons detentions and delayed issue of Railway Receipts. Records show that the number of wagons weighed at Bhojudih weighbridge had gone up from 3052 in July, 1968 to 3741 in July, 1969. The same upward trend continued in August, 1969 as well after which the number reduced slightly due to general slack season during the monsoon.

The attempted saving by the non-operation of the weighbridge at Bhaga was thus nullified by increased delay in weighment of wagons of Bhaga Depot and by the mounting dissatisfaction of the customers who started getting their railway receipts late. The attempt at this saving had, therefore, to be abandoned in the over-all interests of railway operation."

4.47. The Committee enquired what was the present annual avoidable expenditure consequent on the reopening of the weighbridge at Bhaga in view of the fact that its closure was expected to bring a saving of Rs. 1.78 lakhs annually. It has been stated by the Railway Board that "The operation of Bhaga weighbride being thus essential for the proper conduct of booking of coal traffic at Bhaga Depot no expenditure being incurred in this operation is avoidable."

4.48. The Committee note that within a year of installation at a cost of Rs. 1.65 lakhs, the weighbridge at Bhaga had to be closed down because of declining trend of traffic. The closing down was expected to result in an annual saving of Rs. 1.78 lakhs. The weighbridge was, however, re-opened in October, 1969 as its closure had

generated complaints about inordinate delay in weighment and issue of railway receipts' for the wagons weighed at neighbouring station Bhojudih.

4.49. It is obvious from the facts of the case that the economy aspect of the installation of a 100 ton weighbridge or its re-opening after closure was never considered. The 100 ton weighbridge was installed at Bhaga because there was no other suitable place for installing the weighbridge which had already arrived. It was re-opened because its closure had given rise to some complaints.

4.50. The Committee are of the view that the installation of the 100 tons weighbridge was not indispensable and could have been avoided on economic considerations.

Northeast Frontier Railways—Loss due to Construction of Uneconomic Temporary Quarry siding at Behubar

Audit Paragraph

4.51. In the riverine quarry at Behubar, the Railway Administration had been providing temporary sidings every year on the river bed, for directly training out quarry products. As the entire quantity of quarry products collected at site could not be trained out, the Administration had been carting the balance quantities to the high ground, to avoid loss due to wash-out during monsoon. The quantity of quarry products collected, trained out from the site and that trained out from the high ground during the years 1966 to 1968 was as under:—

Year	Quantity collected	Quantity trained out from site	Quantity trained out from high ground
1966	8,44,451 cft.	2,98,654 cft.	5,45,797 cft.
1967	8,79,114 cft.	2,00,028 cft.	6,79,086 cft.
1968	18,367·98 cum.	3,502·93 cum.	14,865.05 cum.

4.52. The reasons for training out the bulk of the quantity from the high ground instead of from the site itself were (i) non-availability of ballast trains and departmental traffic wagons and (ii) limitation of branch line operation on the movement of ballast trains. As the cost of carting the quarry products from the site to the high ground was much lower than the cost of providing siding, the Railway Administration incurred an extra expenditure of Rs. 1.92 lakhs.

during the years 1966 to 1968 in training out the quarry products by providing the siding.

4.53. The Railway Administration stated (November, 1969) that the existing stacking area of 13,300 sq. metres was insufficient for stacking the entire quantity collected and that the development of further space would have been a costlier proposition. It may, however, be stated that stacking on the high ground and training out therefrom being simultaneous operation, the entire quantity could have been carted to the high ground and trained out therefrom in view of the fact that the quantity trained out directly from the river bed was only a fraction of the quantity carted to the high ground.

[Paragrapsh No. 25—Audit Report (Railways), 1970]

4.54. The Committee were informed that the quarry at Behubar has been in operation since about 1924 or so. The quantities of quarry products collected each year and the percentage trained out directly from the river bed have been given below:

Sr. No.	Year	Quantity collected	Quantity trained out from the river bed	% of quantity trained out from river bed
1	1969	7,22,821 Cft (22,346.64 Cum)	2,13,654 Cft (6,050 Cum)	28·08%
2	1968	6,48,660 Cft (18,367·98 Cum)	1,23,705 Cft (3,502·93 Cum)	10·1%
3	1967	8,79,114 Cft	2,00,028 Cft	22·8%
4	1966	8,44,451 Cft	2,98,654 Cft	35·4%
5	1965	7,17,559 Cft	3,72,018 Cft	51·8%
6	1964	5,69,212 Cft	1,69,024 Cft	29·6%
7	1963	9,27,035 Cft	4,22,824 Cft	45·1%
8	1962	8,05,998 Cft	3,63,777 Cft	45·1%
9	1961	8,54,814 Cft	2,80,298 Cft	32·6%
10	1960	11,78,721 Cft	3,91,244 Cft	33·1%

4.55. Explaining the reasons why the sidings were provided every year when these could not be put to full use, the Railway Board have stated: "The supplies made at Behubar quarry have to be run out as expeditiously as possible as this is the major source of

supply in Dibrugarh District. The quarry siding at the river bed is thus an essential adjunct to this riverine quarry with a view to train out as much quantity as possible during the working season. It has never been the intention to train out the entire supplies of quarry products directly from the river bed, as this may not be a practical proposition. Training out of the materials as quickly as possible during the working season from the quarry to the site of various works has thus been the prime consideration and this limited objective has been achieved with the help of the siding laid in the river bed also."

4.56. The Committee desired to know whether the economics of carting the entire products to high ground and laying of temporary sidings were ever worked out. The Railway Board have stated: "It is true that the economics of laying the siding in the river bed *vis-a-vis* the carting of the quarry products to high ground were not worked out. It may, however, be submitted that laying of the siding should not be viewed from the financial angle alone without taking into account the practical considerations. The whole question will, therefore, have to be viewed in the context of feasibility of carrying out the quarry operation without having temporary siding in the river bed and the repercussions that it would create. As per the conditions stipulated by the tenderer and accepted by the Railway the supply of materials in stacks have to be made at different sites in the quarry, *i.e.* char. After acceptance of the material in stacks in char, the passed materials were loaded and trained out in order to remove them as quickly as possible and to avoid losses due to washaway. Also the tenders were accepted on a 3-year basis but the length of temporary siding laid each year varied depending on the location of deposits in the river bed. The extent to which the siding was required as also its location were examined by the Railway and only minimum siding facilities as required were provided consistent with procurement.

It would not have been possible to cart the full quantity collected at the char to the high ground during the working season as the high ground has inadequate stacking area. The alternative of developing the adjoining area for purposes of a stacking is also not justifiable as this will involve an initial expenditure of approximately Rs. 3.95 lakhs for development and recurring expenditure of approximately Rs. 9,20,000 for construction of necessary approach roads every year.

Also training out of the materials as quickly as possible from the quarry to the site of the various works has been the prime and overriding consideration of the Railway which would not have been possible but for laying the siding in the river bed."

4.57. It has been stated that the cost of laying the siding in the river bed for the year 1969 was Rs. 1,08,936 and during the same year 2,11,750 Cft of materials were directly loaded in the ballast trains from the river bed. The corresponding cost that would have been incurred if these materials were taken to high-ground by paying carting charges would come to Rs. 38,936. The difference between the cost of laying siding and the cost that would have been incurred if all the materials from the char were taken to the high ground would thus be of the order of Rs. 70,000 for the year, 1969.

4.58. In another note, the Railway Board have stated:

> "The existing theoritical stacking area at present available on the high ground is actually 12,430 sq. metres (although a figure of 13,300 sq. metres was earlier given to the Audit). In actual practice, stacking cannot be done on the entire area as space would have to be kept for free movement of labour for stacking operation, for movement of trucks and for loading of wagons. The effective available area would thus be 50 per cent of this theoritical area and the approximate quantity ballast which could be thus stacked on the high ground would be 5690 cu. metres (1,99,150 cft) taking into account stacks of 0.914 metre (3 feet) height."

4.59. As the collection of ballast and training out was a continuous process the Committee wanted to know how it was not possible to manage within the available area. The Railway Board replied:

> "Even though theoretically, it may be argued that stacking on the high ground and training out therefrom is simultaneous, the intake from the "Char" could not be regualted in practice according to the out-take from the high ground. Also the limitations of branch line operations in the movement of ballast trains, restricted performance of ballast trains, non-availability of departmental traffic wagons etc. which have actually handicapped the training of materials from the char during winter months, would equally apply to the training of materials from the high ground and it would not have been a practical proposition to train out the entire quarry materials procured directly from the high ground within the available area."

4.60. In reply to a question whether it was not advantageous to develop stacking area in the high ground once rather than spend money every year in laying siding, the Railway Board have stated:

"Development of the stacking area in the high ground would involve an initial expenditure of Rs. 3.95 lakhs approximately besides a recurring annual expenditure of Rs. 92,000 approximately for construtcion of necessary approach roads. Besides, there is every possibility of the rates being affected, if the contractor is asked to stack and train the materials from the high ground, especially when the quantity to be procured is high. It may not, therefore, be always advantageous to resort to this alternative."

4.61. The Committee note that only a small percentage of the quantities of quarry products collected each year was trained out directly from the river bed. The average of 10 years comes to about 34 per cent only. The rest of the quarry products had had to be carted to the high grounds in any case during all these years.

4.62. From the information made available to the Committee it is noted that the comparative cost of carting the products to the high grounds is considerably lower than the cost of training out of products directly from the river bed. The Railway Board have admitted that this aspect had not been considered earlier although this system had been in operation for a very long time. In the circumstances, the Committee would suggest that a thorough study be made about the economics of carting the products to high grounds vis-a-vis laying of siding in the river bad and the position reviewed in the light of the findings.

V

WORKS EXPENDITURE

Eastern Railway—Abandonment of a work after Incurring Heavy Expenditure

Audit Paragraph

5.1. In order to meet the anticipated incerase in the down country coal loading estimated by the Coal Controller in November, 1962 as 1,280 wagons at the end of Third Five Year Plan and to facilitate cross movements of passenger and goods trains, the Railway Administration included the work of providing a 'fly over' in Naihati Yard in the Works Programme for 1964-65 at a cost of Rs. 42 lakhs. The Abstract Estimate amounting to Rs. 63 lakhs for the work was sanctioned by the Railway Board in February, 1966. In the meanwhile, coal traffic had indicated a downward trend, from 957 wagons in 1963-64 to 895 wagons in 1965-66, which was also far below the forecast of 1,280 wagons given by the Coal Controller in November, 1962. The work, however progressed without making a fresh assessment of coal traffic in the light of this declining trend. Tenders for the work were called for in June, 1966 and contract awarded in February, 1967.

5.2. The Railway Administration decided in November, 1967 to seal off the work on the ground of declining trend in coal loading for down country consumers. By this time an expenditure of Rs. 4.04 lakhs (out of which Rs. 2.67 lakhs represents the cost of staff, payment to contractors etc. and is irrecoverable) had been incurred on the work. The contractor has sought arbitration for settlement of his pending claims. This expenditure could have been avoided if the need for this work had been reviewed before calling for the tenders in June, 1966 or before awarding the contract in February, 1967 when it was apparent that coal traffic, which was showing a declining trend, was far below the forecast given by the Coal Controller more than four years earlier.

[Paragraph No. 25—Audit Report (Railways), 1970]

5.3. The Chairman, Railway Board informed the Committee during evidence that the requirement of the work was based on the

anticipated increase in traffic—firstly due to extra coal that would be coming to down country and secondly due to increase in the passenger services on Calcutta-Rana Ghat section. The 'Fly-over' would also have facilitated cross movement of passenger and goods trains as its absence was responsible for large detention of trains on Calcutta-Rana Ghat line which is cut across by Bandel-Naihati line.

5.4. In regard to the increase in coal traffic, the Chairman, Railway Board deposed:

> "This increase in the coal traffic which was going on got completely halted due to the Indo-Pak war in 1965 September. It has gone up to about 1,000 wagons of coal loading. It dropped down. After that it remained stationary for a time and then it went on increasing. That is, by 1966 July, the drop was arrested. There was again a downward trend. The estimate was sanctioned in February, 1966 and the tender was accepted I think in February, 1967. The contract was awarded in February, 1967. Upto that time, the Railways did not anticipate that this traffic development would take place. But, by about July, 1967, a definite downward trend of coal started. When this started, they referred it to the Railway Board that in view of the need for economy whether we should seal off the work."

5.5. The daily average in terms of 4-wheelers of down country coal loading for the years 1962 to 1967 month by month were as follows:

Month	1962	1963	1964	1965	1966	1967
January	898	899	894	927	784	849
February	930	980	963	993	851	859
March	917	1033	889	823	784	889
April	977	1014	923	944	821	862
May	871	981	921	889	709	808
June	981	946	958	1021	796	787
July	1047	979	953	1017	855	843
August	1037	1039	1019	1019	763	732
September	1030	933	986	903*	810	726

Month	1962	1963	1964	1965	1966	1967
October	1005	930	892	874	801	669
November	965	961	926	859	858	720
December	960	892	908	781	917	792

*Sept' 65—Indio -Pak conflict.

5.6. It is seen from the above figures that the daily average of wagons loaded in any one month has never exceeded 1047. This is in fact the maximum figure recorded in the month of July, 1962. In subsequent years the daily average has been much less.

5.7. It is also seen that in February, 1966 when the abstract estimates were sanctioned, the daily average was 851 loaded wagons and in June, 1966, when the tenders were called the relevant figure stood at 796 wagons only. Similarly in February, 1967, when the contract was awarded, the daily average was of the order of 859 wagons.

5.8. The annual average number of wagons loaded were as follows:

1961-62	882
1962-63	982
1963-64	957
1964-65	936
1965-66	895
1966-67	827
1967-68	768
1968-69	737

From the above figures it is seen that the average number of wagons loaded each year is much below the figure of 1280 wagons as anticipated to materialise in 1966. The average number of wagons loaded in 1965-66 comes to only 895 wagons and thereafter there is a steep fall in the average number of wagons loaded in the subsequent years.

5.9. At the time of sanctioning the abstract estimate in February, 1966, the end of the Third Five Year Plan had been nearly reached, and the coal traffic had not increased as forecast by the Coal controller. The Committee enquired whether any reappraisal of the need for the work was made in view of the known considerable disparity between forecasts and actual materialization of coal traffic and the stoppage of Indo-Pak traffic. The Railway Board have in a written note stated:

"In 1966 there was no indication at all that the coal traffic in the down country direction was going down as would be evident from the month-wise figures be seen January and October 1966 given below:—

1966	January	784
	February	851
	March	784
	April	821
	May	709
	June	796
	July	855
	August	763
	September	810
	October	801

In 1965-66 the average coal loading daily was 895 wagons. In spite of the suspension of Indo-Pak trafic due to hostility in September, 1965 which resulted in stoppage of coal movement to the extent of 130 wagons daily, the average daily coal leading in 1966-67 dropped down to 827 wagons only which indicated that in spite of stoppage of 130 wagons there was no shortfall in the remaining traffic other than Indo-Pak traffic. In February 1966, the daily average was 851 wagons. Adding the cancelled Indo-Pak traffic of 130 wagons the total comes to 981 wagons. There was no indication at that stage that the Indo-Pak traffic would not be resumed in the near future. There was thus no reason to make a reppraisal of the need of the work at time of sanctioning of the abstract estimate in February, 1966."

5.10. It has been further stated that "since there was no indication of the sharp decline in the coal traffic before August-September, 1967, no review was carried out either in June, 1966 when the tenders were invited or in February, 1967 when the contract was awarded".

5.11. The Audit have given the following comments on this point:

> "While planning the construction of Fly over bridge at Naihati Yard it was *inter-alia*, estimated that at the end of 3rd Five Year Plan, *i.e.* by March, 1966 the down country coal loading would be 1280 wagons per day as against the actual average yearly figures of 882 in 1962 and 982 in 1962-63. This figure was never reached and the Railway Administration should have been aware of this. The first six months (January—June) of 1966 in fact showed a substantial decline with reference to previous four years and as the decision to call for tenders was taken in June, 1966, this fact should have been considered. Again, before the contract was awarded in February, 1967, excepting for December, 1966 and January, 1967, the figures of coal loading in 1966 was lower than the figures for corresponding months in the previous four years. Even for December, 1966 and January, 1967 while the figures showed an improvement over December, 1965 and January, 1966, this was not the case with reference to earlier years. This was also not considered prior to award of the contract. While the figures for March-August, 1967 could not have influenced the decision as the contract had already been awarded, what was said above applies to this period also. It is, therefore, our view that the decision taken in December, 1967 could have been taken even earlier, if prior to calling for tenders and awarding them the Railway Administration had considered the traffic trends carefully."

5.12. During the course of evidence, the Chairman, Railway Board observed:

> "Though the work was sealed off yet I would not say that the expediture incurred would be infructuous. I think that in the near future, this work will have to be taken up because this cross movement creates a lot of delay. As and when the suburban trains develop we have to do that. So, it won't be an infructuous expenditure at all. For the

present whatever money we have spent remains infructuous. That is to the tune of about Rs. 2.67 lakhs plus the amount which will be awarded by the arbitrators. That part will remain infructuous. Since only a little earth work was done, this expenditure had to be incurred.... The increase in traffic in the suburban section from Calcutta to Rana Ghat is going to be much more than what it is to-day. The suburban trains are not adequate. As and when we get more and more coaches, the services will have to be increased and are trying to do this work."

5.13. In answer to another question, the Chairman, Railway Board replied thus:

"My personal view is that in the next three years we shall do that. I would have done it to-day if we have not so much of difficulty about finances. If you take the figures of detention on which I quoted, I think that this work would be justified but for our financial difficulty."

5.14. He further stated: "We have to take a decision whether to spend Rs. 65 lakhs now or we should defer it by three or four years. The traffic has not developed to the extent as we anticipated to consider this work as economically justifiable."

5.15. The Committee were also informed that the work could be completed in two years' time and that by the end of the Fourth Plan when the Railways proposed to run new EMU coaches, the work will have to be done again.

5.16. In a written note, the Railway Board have stated that "The joint abritrators have been nominated in the last week of October, 1970 and they are expected to go into reference within the next few days. The arbitration proceedings are expected to be completed within a period of 4 months."

5.17. The Committee note that the main consideration for providing a 'fly-over' in Naihati Yard was the anticipated increase in coal traffic which was expected to increase from 882 wagons in 1962 and 982 wagons in 1962-63 to 1280 wagons at the end of the Third Five Year Plan i.e. by March, 1966. From the information furnished to the Committee, it is however, seen that in February, 1966 when the abstract estimates were sanctioned, the daily average was 851 loaded wagons and in June, 1966, when the tenders were called this figure stood at 796 wagons only. Again in February, 1967, when the contract was awarded, the daily average was of the order of 859 wagons

only. The Committee feel that in view of the considerable disparity between forecastes and actual materialisation of coal traffic reappraisal of the need for the work was called for which was unfortunately not done at the appropriate time.

5.18. The Committee trust such lapses will not be allowed to recur. The Committee would also like to be apprised of the outcome of the arbitration proceedings currently in progress on the contractor's claim.

South Central Railway—Avoidable Expenditure on a Doubling Work

Audit Paragraph

5.19. An abstract estimate for Wadi-Shahabad doubling project framed on the basis of a detailed preliminary-cum-final location Engineering Survey carried out by the Railway Administration and sanctioned by the Railway Board in January, 1964 provided for 16.5 lakhs cft. earth work in bank in bridge approaches and 301.1 lakhs cft. in main formation. In determining the latter figure, the Railway Administration did not take any cross section measurements as this was not considered necessary in view of the fact that the line was passing through palin country. For earstwork in bank in bridge approaches the Administration awarded a contract in April, 1964 for 16.5 lakhs cft. of earthwork from Railway's borrow pits. While calling for tenders for earthwork in main formation, a reduction of 10 per cent in the quantities from the estimated figures was made and consequently a contract for 270 lakhs cft. of earthwork (215 lakhs cft. from Railway's borrow pits and 55 lakhs cft. from contractor's earth) was awarded in June, 1964.

5.20. During the actual execution of the work, however, only 4.5 lakhs cft. of earthwork could be done against 16.5 lakhs contracted for in April, 1964 as sufficient earth was not available in Railway's borrow pits. The quantities of earthwork in main formation also fell very much short of the requirement. A fresh contract was, therefore, awarded at higher rates in February, 1968 for executing additional earthwork of 96 lakhs cft. out of which an actual quantity of 85 lakhs cft. (43 cft. from contractor's earth and 42 lakhs cft. from Railways borrow-pits) was actually executed. The extra expenditure in carrying out additional earthwork amounted to Rs. 9.5 lakhs.

5.21. The Railway Administration explained (November, 1969) that the variations occured owing to the following reasons:—

(i) finalisation of Master Plan for Wadi Yard in February, 1964 which resulted, firstly, in change in alignment of the line at some places and secondly in having to raise the formation at one place in order to provide a road underbridge in place of level crossing provided earlier; and

(ii) variations between rough quantities of earthwork estimated eariler and the final quantities that had to be executed.

5.22. It may be mentioned that Wadi Yard Remodelling work had already been sanctioned in May, 1962 and the work was under execution in phases. The expenditure could have been avoided if the Railway Administration had taken into account the implications of the Wadi Yard remodelling and if correct estimation of the quantities of work, required to be executed, had been done during the preliminary-cum-final location Engineering Survey.

[Paragraph No. 26-Audit Report (Railways), 1970.]

5.23. The Committee enquired as to what were the reasons for the underassessment of the quantity of earthwork provided for in the abstract estimate of the project. In a written note, the Railway Board have stated:

"The main reasons for the under assessment of the quatities of earthwork provided for in the abstract estimate were as follows:—

(i) *Shifting of alignment of the double line to suit the Wadi Yard Remodelling proposals.*

During the final location survey, the alignment of the new double line had been located as close to the existing line as possible keeping in view the minimum distance required to accommodate the difference in rail level between the new line and the existing line which were on differing ruling grades. This alignment had been finalised in May/June, 1963 and the sanctioned abstract estimate provided for earthwork quantities base on this alignment. Subsequently in February, 1964, i.e. after the abstract estimate had been sanctioned and works were about to be commenced, the Administration finalised a master plan for the Wadi Yard and also the first

stage of the yeard remodelling. In order to suit the Ward Yard remodelling proposals, it was found necessary to shift the alignment of the new double line by distances upto 18 ft. away from the alignment proposed in this survey. This swinging away of the new line from the existing line increased the volume of the earth work in the bank as the ground was falling away from the existing line. The net increase due to this cause was approximately 10 lakhs Cft.

(ii) *Increase in quantities due to increase in the head room clearance of road under Bridge at Chainage* 26398.

The Road to Rovoor village cuts the existing alignment at Sh. 26398 where a 'B' class manned level crossing was in existence. In view of the fact that the new double line would be at a higher level at this location than the existing line it was initially proposed during the survey to divert the level crossing towards Wadi Yard. On a detailed examination during actual execution of the work after the abstract estimate was sanctioned, the shifting of the level crossing could not be proceeded with due to development of the Wadi Yard itself in accordance with the master plan which had been finalised after the survey had been completed and the abstract estimate sanctioned. It was, therefore, proposed to provide a road under bridge with a limited head room clearance of only 11 ft. as the road passing under this bridge was not considered to be very important. The P.W.D. authorities, however, insisted on a head-room clearance of 16'—16" as the road was being used for heavy lorry traffic due to the establishment of a new cement factory at Wadi. The establishment of this factory in 1966 and consequent increase in lorry traffic through the existing level crossing were also factors not known to the administration at the time of the final location survey. As a result of discussions with the PWD authorities, a head-room clearance of 14' was agreed to. Due to the proximity of the level crossing on the existing line, it was not possible to lower the road level to get the required clearance. It was found necessary to lift the formation of the entire line by Ch 72 ft. and since it was in a ruling gradient of 1 in 50 over a distance of 16,000 ft. it involved regrading. The excess due to this lifting was approximately 16 lakhs Cft.

(iii) *Increase due to regrading of Cogni Bridge approach.*

The bank at the Wadi end of Cogni Bridge was regraded when finalising the working section before execution of the work. The increase on this account was only 1 lakh Cft.

(iv) *Increase due to difference between the approximate estimate of earth work in the sanctioned abstract estimate and the final estimate based on cross section.*

The preliminary-cum-final location was conducted keeping in view the provisions in Paras 420 to 474 of the Engineering Code. In such surveys, detailed cross sections are not always taken at frequent intervals to estimate the quantity of earthwork. In this case no cross sections were considered necessary, since the new double line passed through Plain country. Para 423 of the Engineering Code stipulates that the amount of detail in sectioning will depend on the nature of the country traversed and that cross sections should be taken where the Engineers consider necessary. The quantities provided for in the abstract estimate were based on the centre line heights calculated from the spot levels taken along the longitudinal profile of the alignment. This is usually considered sufficiently accurate for the preparation of abstract estimates and any variation between the actual quantities and such estimated quantities would not materially affect the overall construction estimate. On the other hand, the quantities actually executed have been calcualted on the basis of detailed cross section, which were taken after the sanction to the abstract estimate and works commenced by the contractor. The difference between the two quantities was 22 lakhs Cft. which is about 7 per cent of the total quantity provided in the abstract estimate.

Thus there was a total excess of 49 lakhs Cft. over the original estimated quantity of 317.6 lakhs Cft., the actual quantity executed was 366 lakhs Cft. It will, therefore, be apparent that the factors mentioned against items (i), (ii) and (iii) could not be foreseen at the time of preparation of the abstract estimate and hence these quantities have not been included in the assessment."

5.24. Asked why cross section measurements were not taken for determining the quantity of earthwork, the Railway Board replied:

> "In srveys in plain country it is not obligatory to take cross sections during final location survey. Para 423 of the Engineering Code stipulates that cross sections should be taken wherever the Engineers consider them necessary. In this case as the alignment of the double line was to pass through plain country, no cross sections were originally considered necessary by the Railway. The earthwork quantities were, therefore, assessed on the basis of the longitudinal levels taken at intervals of 100 ft. Obviously, due to the side slopes of the existing embankments and other features at site, the longitudinal levels did not present a correct picture of the requirements of earthwork. Instructions have since been issued to all the Railways to carry out surveys for such works under the charge of an Engineering-in-Chief and it is expected that such deficiencies will be minimised in future."

5.25. The para states that while calling for tenders for earthwork in main formation, a reduction of 10 per cent in the quantities from the estimated figures was made. Giving the reasons for this reduction, the Railway Board have stated:

> "A practical study of similar doubling works in progress on the Secunderabad Division had revealed that the actual quantities during execution fell short of the estimated quantities. Examples are given below:—

	Estimated quantity	Quantity actually executed	percentage of variation
Secunderabad Bibinagar Section . .	32·79 lakhs Cft.	25·23 lakhs Cft.	(—) 23%
Bhongir-Pembarthi Section . .	46·00 lakhs Cft.	29·20 lakhs Cft.	(—) 36·5%
Pendial-Kazipet Section	5·59 lakhs Cft.	4·06 lakhs Cft.	(—) 27·2%

> In the light of the experience of the above doublings the Railway made *an ad hoc* reduction of 10 per cent only from the quantity of earthwork while inviting tenders. The terrain covered by the above doublings was also through plain country but the heights of the banks were very

much less than the heights of the Wadi-Shahabad bank, and as a corollary, the quantities of earthwork were also comparatively much smaller than the quantities involved in Wadi-Shahabad doubling. It was, therefore, considered prudent to effect a reduction of only 10 per cent. Unfortunately, however, this anticipation did not materialise."

5.26. The Committee pointed out that as stated in the Audit para only 4.5 lakhs Cft. of earthwork could be done against 16.5 lakhs Cft. constructed for due to non-availability of sufficient earth in Railways borrow pits. The Committee desired to know the basis on which the contract for 16.5 lakhs Cft. of earthwork from Railway's borrow pits was given. The Railway Board have furnished the following note in reply:

"The contract for the minor bridges provides for doing the full quantity of earthwork for a length of 50 ft. on either side of the minor bridges with earth to be obtained by head load from the Railway land located opposite to the bank to be formed. The total quantity for all the bridges was assessed as 16.5 lakhs Cft. This provision was made on the assumption that adequate earth from borrow pits in railway land adjoining the bridge approaches would be available. After the abstract estimate was sanctioned, while finalising the contracts for earthwork and bridges, in the case of earthwork contracts the quantity equivalent to approximately 20 per cent of the total quantity was provided for execution by earth brought from outside railway land to cover the eventuality of a shortfall of earthwork available from railways' borrow pits. In the case of contracts for bridges, since the quantities of earthwork were not much such a contingency was not considered likely, and therefore, not provided for. It was anticipated that the whole qantity would be found from Railway's borrow pits themselves."

5.27. As regards the reasons for non-availability of sufficient earth from Railway's borrow pits and why these could not be foreseen at the time of awarding contracts in April, 1964, the Railway Board have stated as under:

"The terrain covered by this doubling work consists of black cotton soil, which overlies stratified layers of soft rocky lime stone strata. The depth of black cotton soil layer is very uneven varying from 1 or 2 ft. depth at some loca-

tions to several feet depth at other locations. Assessment of quantities of earth that would be available even on the basis of a few trial pits here and there would have been wide off the mark. In these circumstances, the assessment, made by the Railway on the basis of topographical features and a few trial pits proved to be inadequate, and the assumptions proved to be wrong. This was the first doubling project undertaken in this area, and the railway was not aware of such wide variations in the depth of strata. The normal methods of assessment, therefore, proved to be misleading. These features were not known at the time of awarding the contracts in April, 1964."

5.28. According to audit para one of the reasons for the variations between the anticipation and actuals as explained by the concerned Railway Administration was the finalisation of Master Plan for Wadi Yard in February, 1964 which resulted in a change in alignment involving more of earthwork. The Audit have, pointed out that Wadi Yard Remodelling work had already been sanctioned in May, 1962 and the work was under execution in phases. The Committee enquired why the implications of the Wadi Yard Remodelling were not considered at the time of the preparation of the abstract estimate. The Railway Board have stated in a written note as under:

"Although the remodelling of Wadi Yard was sanctioned in May, 1962, the Master Plan for the work was finalised in November, 1964. The Survey work for the doubling was carried out during May-June, 1963 and the estimate was prepared in August, 1963. Hence the full implications of Wadi Yard remodelling were not known at the time of preparation of the estimate for the doubling work."

5.29. The Committee observe that the requirement of earthwork as also the availability of earth in the railway borrow pits was not properly assessed when the abstract estimate was sanctioned. The difference between the approximate estimates of earthwork in the sanctioned abstract estimate and the final estimate based on cross section measurements alone is of the order of 22 lakhs cft. In all there was an under estimation to the extent of 96 lakhs cft. of earthwork, for which a fresh contract at higher rates involving additional expenditure of Rs. 9.5 lakhs had to be given.

5.30. Since the work on the Wadi Yard remodelling scheme already sanctioned in May, 1962 was under execution in phases, it is reasonable to expect that the implications of this scheme should have been

foreseen by the Railway Administration before the doubling project was finalised in January, 1964.

5.31. The Committee cannot resist the conclusion that the extra expenditure of Rs. 9.5 lakhs could have been reduced if a proper and realistic assessment of the work involved had been made before awarding the contracts for earthwork in 1964.

South Central Railway—Avoidable Expenditure on Earthwork

Audit Paragraph

5.32. In connection with the doubling of Duvvada Gopalapatnam Section, which formed part of Tuni Gopalapatnam doubling work, the Railwday Administration decided in January, 1963, to lay the up line with a flatter gradient of 1 in 250 on a diverted alignment instead of laying it along side the existing alignment which had a ruling gradient of 1 in 150. The easing of the gradient was considered essential in order to overcome the difficulties of the existing gradient of 1 in 150 which required banking and also to mitigate the frequent troubles due to breaches in the area. Due to urgency, however, the work was completed with a gradient of 1 in 200 in a stretch of about a mile and the line opened for goods traffic in May, 1966. In November, 1967, the Railway Administration sought the approval of the Railway Board for retaining the gradient of 1 in 200 on this stretch on the ground that steam locomotives did not require banking for 2,000 tonnes trains on his gradient and that dieselisation was progressively being introduced. The Railway Board in July, 1968 approved the adoption of the gradient as a permanent measure. Starting the construction of the formation with a view to building it up to a gradient of 1 in 250 and later limiting the height of the bank, when 1 in 200 grade was achieved, resulted in the provision of wider bank than necessary entailing superflous earthwork costing Rs. 4.83 lakhs.

5.33. The Railway Administration explained in October, 1969, that it was necessary to provide a gradient of 1 in 250 for the entire doubling to enable steam locomotives to haul 70 wagons in order to fully utilise the yards and loops which had been built to handle 70 wagons goods trains and the provision of the gradient of 1 in 200 for this short section between Duvvada and Gopalapatnam would limit the overall capacity of the enitre line resulting in the under-utilisation of the assets created on this line. However, the Administration themselves at one stage contemplated a steeper gradient of 1 in 150 in this section prior to January, 1963, when the alignment of the

second line was different, on the ground that this was more economical. Further, their admission that after opening of the line in May, 1966 its performance showed that the requirements of traffic could be met even with a gradient of 1 in 200 for a short stretch of one mile and regrading of the portion to 1 in 250 gradient did not arise, also contradicts the plea that uniform gradient of 1 in 250 was necessary all along the line. The extra expenditure of Rs. 4.83 lakhs could have been avoided if the adequacy of 1 in 200 gradient at this stretch had been investigated and bank built accordingly.

[Paragraph No. 27-Audit Report (Railway), 1970].

5.34 The Committee desired to know the considerations on which the decision was taken to provide 1 in 250 gradient in the Section between Duvvada and Gopalapatnam. In a written note furnished to the Committee, the Railway Board have stated:

"The following were the considerations on which decision was taken to provide 1 in 250 gradient on the section between Duvvada-Gopalapatnam for the doubling:

(a) The existing ruling gradient on the section was 1 in 150 and the steam trains required banking in the up direction. In order to avoid banking and to enable the steam locomotives to haul a load of 2250 tonnes single handed the gradient had to be eased to 1 in 250. There was no proposal under consideration at that time to run diesel trains on this line even in the Fourth Plan.

(b) All the doublings on the East Coast line between Waltair and Madras had been planned in such a way that the double line would be on a ruling gradient of 1 in 250. Hence the section between Duvvada and Gopalapatnam had also to be planned with the up line on a ruling gradient benefit could be derived from the doublings already carried out.

(c) The regrading to 1 in 250 was made all the more easy as the existing track which was affected by frequent breaches due to inadequate waterway at Bridges 752 and 757 for balancing of tidal waters during floods, had to be diverted and regarded suitably."

5.35. The Audit para states that prior to Jan., 1963 when the alignment of the second line was different, the Administration had contemplated a steeper gradient of 1 to 150 in this section as it was

considered more economical. The Committee enquired whether economics of provision of gradient of 1 in 250 versus gradient of 1 to 150 with banking was examined. To this the Railway Board replied:

> "The economics of providing a gradient of 1 in 250 versus retaining a gradient of 1 to 150 by banking was examined by the Southern Railway. It was found that retention of the existing 1 in 150 ruling gradient with banking would be costlier than the construction of a diversion with 1 in 250 gradient, by Rs. 33,000 per year. Hence it was decided to adopt a ruling gradient of 1 in 250 to avoid the banking."

5.36. From the information furnished by the Railway Board, it is seen that the provision of 1 in 250 gradient was considered essential in order to enable steam locomotives to haul a full train load of 2250 tons, without banking. The Committee called for information regarding the average load per train and average number of wagons per train on this Section from 1964 onwards. A statement furnished by the Railway Board in this regard is given at Appendix V.

5.37. It is seen from the statement that in the six year period from 1964 to 1969, the monthly average of the gross load per train hauled by steam locos exceeded 2000 tonnes mark in the up direction only in March, 1966, June, 1968, December, 1968, July, 1969 and August, 1969. The range of average monthly load during 1964 to 1969 was as tabulated below:

5.38. The Audit have made the following comments on this point:

> "It is not clear from the Railway Board's reply..... whether the Railway Administration specifically examined the possibility of managing with 1 in 200 gradient as desired by the Railway Board in December, 1962. It was also apparent from the Chief Engineer (Constn.) Southern Railway's D.O. No. W 182 XIV 16 constn. dated 22nd December, 1962 to the Joint Director Works, Ministry of Railways (Railway Board) that the Railway Administration proposed a gradient of 1 in 250 without examining the adequacy of 1 in 200 gradient. The plea of the Board that the provision of 1 in 250 gradient was considered essential in order to enable steam locomotives to haul a full train load of 2250 tons without banking is not tenable as during the period from April, 1964 to August, 1969, the

average gross load hauled never exceeded 1600 tonnes for a train hauled by steam engine and 1900 tonnes for a train hauled by diesel engine and, therefore, steam locos could have hauled 2000 tons load on a line with gradient of 1 in 200 without banking. It was thus obvious that if the Railway Administration had provided 1 in 200 gradient after properly examining the Railway Board's suggestion in December, 1962, the extra expenditure of Rs. 4.83 lakhs incurred on the provision of wider bank to suit the gradient of 1 in 250 could have been avoided."

5.39. The Audit para, however, states that the work was completed with a gradient of 1 in 200 on a stretch of about a mile and the line was opened for goods traffic in May, 1966. This was subsequently approved by the Railway Board as a permanent measure. Asked to State the circumstances under which the work was completed on the stretch of one mile with gradient of 1 in 200, the Railway Board stated in a written note:

"By middle of 1966, except for a short stretch of about a mile, where the formation levels were slightly lower than what they should have been for a gradient of 1 in 250 the work had been substantially completed. At this stage the commissioning of the line for traffic became an urgent necessity not only to ease the traffic position on this section, but also to ensure coordination with the South Eastern Railway who had completed doubling on their portion between Gopalapatnam and Kottapalem Block Hut and other connected work in Waltair Yard, which were required to handle the additional traffic. In view of this the doubling work was commissioned, leaving this short stretch of 1 mile with a gradient of 1 in 200 in May, 1966.

At the time of opening, the intention was to regrade this section gradually to 1 in 250. This regrading would, however, have had to be done under traffic conditions necessitating considerable dislocation to traffic by way of speed restrictions and loss of line capacity. By this time another important factor which had come into operation was the partial dieselisation of the section. With diesel trains there was no need to have a flatter gradient of 1 in 250. It was also found that a load of 2000 tonnes could be hauled by single diesel locomotive and that this position could be managed for the present till full dieselisation was introduced. A review was, therefore, made in 1967 of the

need for regarding the line to 1 in 250 and it was found that there was no necessity for this regarding for the present. Hence the Railway's proposal to retain the gradient of 1 in 200 as a permanent measure was approved."

5.40. The Committee observe that the economics of different kinds of gradients had not been carefully considered by South Central Railway. One of the main considerations for easing the gradient was to enable steam locomotives to haul a full train load of 2250 tons without banking. From the statistics furnished to the Committee, it is seen that during the period from April, 1964 to August, 1969 the average gross load hauled never exceeded 1600 tonnes for a train hauled by steam engine and 1900 tonnes for a train hauled by diesel engine. The gradient of 1 in 200 was found quite adequate for haulage of trains with this much of load.

5.41. The Committee feel that if a proper assessment of the traffic requirements had been made, it could have been possible initially to plan a gradient of 1 in 200 instead of 1 in 250. That would have avoided the extra expenditure of Rs. 4.88 lakhs incurred on the provision of wider banks to suit the gradient of 1 in 250.

5.42. The Committee would like to stress the need for extra caution and abundent care in planning of such works in future.

Northern Railway—Loss due to delay in Planning and Execution of a work

Audit Paragraph

5.43. In 1957-58, Railway Administration decided to replace the system of Mechanical Operation of points and signals with Route Relay Inter-locking at Delhi Main Station. The abstract estimate for the work costing Rs. 35.38 lakhs was sanctioned in September, 1961. The work was expected to effect a heavy reduction in expenditure on operating staff apart from increasing operational efficiency.

5.44. In August, 1959, the tenders calling for quotations for the two possible systems *viz.*, 'Two cabin power lever frame system' and 'Central cabin route relay interlocking system', were invited. The offer of an Indian firm for the latter was accepted in October, 1961 and a formal contract was placed in April, 1962, stipulating completion of the work by April, 1964. The contract provided for supply of materials by the contractor, provision of labour by the

Railway payment of erection-supervision at the rate of Rs. 9,635 p.m. during construction and maintenance-supervision charges at the rate of Rs. 4,415 p.m. after the completion of the work.

5.45. Though the contract was awarded in April, 1962 the contractor could not commence the work due the non-finalisation of the plans by the Railway Administration. The firm was asked to commence work in August, 1964, but the plan was modified after two months and a final plan was given to the firm only in May, 1965. The additional requirements of the material, consequent on the revision of the plans, was determined in October, 1965 and the agreement executed in July, 1966. The work was, however, completed in January, 1968.

5.46. In the meanwhile, the devaluation of the rupee in June, 1966 led to an increase in the cost of the imported stores by about Rs. 12 lakhs and the overall cost of the work, according to the Revised Abstract Estimate prepared in 1967, increased from Rs. 35.38 lakhs to Rs. 72.06 lakhs.

5.47. Due to the delay in the planning and designing of the work, after placing the contract, the Administration incurred additional expenditure of Rs. 1.65 lakhs on account of erection-supervision. Apart from the above, owing to delay in completion of the work, the Administration continued to incur an expenditure of Rs. 94 thousand per year towards the cost of staff which was expected to be reduced after the commissioning of the work.

[Paragraph No. 28-Audit Report (Railways), 1970].

5.48. The Committee called for a statement showing the chronological events from the time the work was included in the Works programme in 1957-58 till it was completed in February, 1968. The statement furnished by the Railway Board is given at Appendix VI.

5.49. While funds for the work were provided in the works programme for 1957-58 the abstract estimate for the work was sanctioned after four years in September, 1961. Explaining this delay, the Railway Board have stated:

> 'Funds for the work were provided in the Works programme for 1957-58 on an approximate basis only but the detailed cost of the scheme had to be worked out with some precision before the abstract estimate for the work could be prepared and sanctioned. The original scheme provided for a Central Cabin working with existing facilities.

In view, however, of the special nature of the very large terminal-cum-through yard of Delhi Main which was restricted for further expansion by the congested city all round and the Jamuna River, the considerable number of through and terminal train movements as well as very heavy shunting movements in yard as this was the first time that a yard of this size and type was being taken up by the Railway for power operation, the Railway had to work out in detail two alternative schemes, namely, (1) two cabins with power frame and (2) Central Cabin Route Relay Interlocking so that a realistic assessment could be made of the tenders, on receipt, in regard to operational facilities and cost. Global tenders were invited for both the alternatives in August, 1959 and the quotations were opened on 1st March, 1960. The offers received were scrutinised by the Railway in full detail and due to various operating implications, a committee of Divisional Officers was appointed in January, 1961 to examine the requirements of shunting operations fully with central cabin working. The committee recommended, in February, 1961, the necessity of the provision of a number of additional shunt signals and reduction in the adequate distance from 400 ft. to 100 ft. The latter recommendation was not accepted by A.C.R.S. in March, 1961. Thereafter the decision to adopt the Central Cabin Route Relay Interlocking Scheme with only certain improvements to shunting and route setting facilities was arrived at in May, 1961. Immediately after, the abstract estimate was prepared and sanctioned in September, 1961."

5.50. It has been stated in the Audit para that tenders invited in August, 1959 were accepted in October, 1961. Asked for the reasons for the time lag of two years in accepting the tenders, the Railway Board replied:

"The global tenders called in August, 1959 were on the basis of two alternative schemes (1) two cabins with power frame, and (2) Central Cabin Route Relay Interlocking. In view of the complexity of the Scheme as well as the provision for alternatives, sufficient time had to be given to the firms and the tenders could be opened only in March, 1960. As a result of the detailed examination of the tenders, central cabin scheme was preferred, but certain improvements to shunting and route setting faci-

lities were considered necessary, as recommended by a Committee. The original plan for central cabin scheme, was therefore, revised to include these facilities in December, 1960. All firms were asked to advice variation in prices on account of modifications to the plan. Six out of eight firms who quoted in the first instance submitted its recommendations to the Railway Board on August 3, 1961 which, after due consideration, were accepted in October, 1961."

5.51. Giving reasons for inviting tenders for two possible systems *viz.*, two cabin power lever frame system and Central cabin route relay interlocking system, the Railway Board have stated as follows:

"Delhi Main is a station which works as a terminal yard as well as a through yard. Most of the through trains stop at this station and sectional coaches have to be detached and attached along with changing engines and reversing TLRS. This involves a colossal amounting of shunting. This station already suffers from its location as further expansion of the yard is prevented by the congested city all around and also the Jamuna River. In view of the terminal-cum-through yard at Delhi Main, plants were prepared for two alternative schemes, namely, two cabin power lever frame system and Central cabin route relay interlocking system, as this was the first time that a yard of this size and type dealing with the movement of a considerable number of through and terminal trains and also involving very heavy shunting movements was being taken up by Northern Railway for power operation and tenders were invited on the basis of two possible systems."

5.52. The Committee enquired why the Administration took 6 months in placing the contract after accepting the firm's offer in October, 1961. In a note furnished to the Committee it has been stated:

"After the issue of the letter of acceptance to the firm in October, 1961, preparation of the Draft Contract Agreement was taken up in consultation with Accounts and the Railway's Officer. The draft was sent to the firm for their confirmation. Detailed discussions became necessary to finalise the various clauses with the firm's representatives. The local representatives of the firm had to consult their principals in France as well. Representatives from the firm's principals in France were required

to sign the agreement and the date of agreement had to suit their convenience. The period of six months for the formal signing of the finalised contract is, therefore, considered not excessive."

5.53. The Audit para states that though the contract was awarded in April, 1962, the contractor could not commence the work due to non-finalisation of the plan by the Railway Administration. In reply to a question as to why were the plans not finalised before the placement of the contract, the Railway Board have replied:

"Tentative plans were originally prepared for two alternative schemes on the basis of which tender notices were finalised. While tenders received on this basis were being examined, a Committee consisting of DOS|M, DOS|G, and DSTE|Works had been appointed to carry out detailed examination of the working of Delhi Main on the basis of Central Cabin scheme. They recommended in February, 1961 that a number of additional shunt signals should be provided and adequate distance for reception of trains should be reduced from 400 ft. to 100 ft. Additional Commissioner of Railway Safety, (ACRS), however, declined to accede to this request of reduction in adequate distance from 400 ft to 100 ft. As such, while finalising the Contract Agreement, advantage of the recommendations made by the District Officers could not be taken. Later, after protracted correspondence and carrying out certain trials, ACRS gave an indication of his willingness to consider the reduction in adequate distance from 400 ft to 300 ft. Based on yard conditions, however, it was decided to request A.C.R.S. for reduction from 400 ft. to 250 ft. With such a reduced adequate distance, it became possible to have 137 pairs of additional simultaneous reception and despatch facilities, which would greatly facilitate shunting operations. This, however, required 27 additional shunt signals and 15 'Free to Shunt', indicators to drivers. Such alterations, if carried out by itself later on after commissioning of this work, would have cost Rs. 18 lakhs extra. Plans were accordingly revised in April, 1963 and A.C.R.S. gave his final sanction to the reduction in the adequate distance on 23-7-1963. This was not a case where plans were not prepared before the placement of the contract, but a case where the tentative plans had to be revised with a view to obtaining maximum benefits from the new assets and the modern system of operation."

5.54. The Audit para further states that the firm was asked to commence work in August, 1964 but the plan was modified after two months and the final plan was given to the firm in May, 1965. The Committee enquired whether the modifications could not have been foreseen earlier. In this connection the Railway Board have furnished the following note:

> "The revised plans for Central Cabin Scheme were approved in August, 1963 after the A.C.R.S. gave his approval to reduction in adequate distance. After this, again the requirements were reviewed in regard to the additional traffic and to run longer trains, when the need for demolishing the existing refuse siding and shunt dead end siding and extension of platform Nos. 1 and 2 was dropped, but the proposal to demolish the existing refuse siding and shunt dead end was accepted. As such, the plans were modified again in May, 1965. These modifications could not have been foreseen earlier as the necessity for the changes based on the requirement of additional traffic arose only in October, 1964. There was, however, no delay in the execution of the work on this account as the firm's final acceptable quotations for additional materials, in reply to Railway's enquiry of September, 1963 for supplementary materials based on plans prepared in August, 1963, were received only in October, 1965, and it was possible to cater for the additional materials required as a result of the changes in plan made in May, 1965."

5.55. According to Audit para the additional requirement of the material consequent on the revision of the plan was determined in October, 1965 and agreement executed in July, 1966. Asked to state the reasons for taking five months in determining the additional requirement of the material and 9 months in executing the agreement, the Railway Board have replied:

> "The reasons for taking 5 months in determining the additional requirement of materials were due to the time required in working out the details of quantities of materials and finalising the cost for the materials which were all imported, as quotations for these items had to come all the way from the Principals of the firm in France. The 9 months time for execution of the agreement was necessary as after the additional requirement of materials was finalised with the firm in October, 1965 the

costs for the materials were vetted by the Railway Finance in November, 1965, and thereafter the Railway Boards approached for the additional foreign exchange in January, 1966. Owing to the generally difficult position of foreign exchange, the sanction to the additional foreign exchange could be communicated to the Railway only in June, 1966 and the agreement was executed in July, 1966."

5.56. The Committee understand from Audit that in regard to the extra expenditure of Rs. 1.65 lakhs on account of erection supervision, the Railway Administration had stated that this extra cost was not in direction proposition to the increased cost of the material but was considerably higher related to the increased wiring and testing work involved at the Supervisor's level. It was also stated that this work was comparable with similar work done at Howrah. The Committee called for a comparative statement in regard to the work done at Howrah. The Committee called for a comparative statement in regard to the work done at Howrah and Delhi. The Railway Board have furnished the following reply:

"A similar work of route relay interlocking was carried out at Howrah station on the Eastern Railway during the year 1967. The number of routes covered by the route relay interlocking at Howrah Station, which is a terminal yard, was 559 as against 539 at Delhi Main, which is both a terminal and a through yard. The period for which erection|supervision charges were actually incurred at Howrah Station was 26 months as against 35 months at Delhi Main."

5.57. The Committee regret to observe that the work planned in 1957-58 to be executed at a cost of Rs. 35.38 lakhs was completed after 10 years by incurring expenditure which was more than double the amount initially estimated. Besides the increased cost, the Railway Administration continued to incur an expenditure of Rs. 94,000 per year towards the cost of staff which was expected to be reduced after the commissioning of the works.

5.58. From the information made available to the Committee, it is seen that there was inordinate delay at every stage of planning and execution of the work. It took the Administration four years before the abstract estimate for the work was sanctioned. After the tenders had been accepted, the Administration took 6 months in placing the contract. Again although the contract was awarded in April, 1962 the Contractor could not commence the work before August, 1964 due to non-finalisation of the plan. Even this plan was modified after

two months and the final plan was given to the contractor only in May, 1965. The Administration took five months more in determining the additional requirements of material consequent on the revision of the Plan and another 9 months in executing the new agreement with the contractor.

5.59 The Committee feel that if the Project to replace the system of mechanical operation of points and signals with Route Relay Interlocking at Delhi Main Station had been properly conceived and planned, at least some of the changes subsequently made could have been anticipated and provided for reducing thereby the inordinate delay in the execution of the work and the expenditure on staff.

Northeast Frontier Railway—Avoidable expenditure on the construction of a new goods shed and a yard remodelling work at Badarpur

Audit Paragraph

5.60. A contract for 6.5 lakhs cft. earth work valued at Rs. 1.13 lakhs was awarded in December, 1964 in connection with the construction of goods shed, R.P.F. barrack and covered accommodation for goods shed. After the commencement of the work on 26th December, 1964, the Railway Administration decided in January, 1965 to remodel the yard which involved resiting of goods shed. By this time, only some quantity of earth work had been done but the Railway Administration instead of stopping the work or restricting it as much as possible went ahead with the work for the proposed yard remodelling work.

5.61. The Badarpur Yard Remodelling work, which envisaged provision of 8 sorting lines and ancillary facilities was sanctioned in December, 1966 and a contract costing Rs. 10.37 lakhs was awarded in March, 1967. In the meanwhile, another yard at Lumding had been commissioned in January, 1967 and the trains marshalled therein could by-pass Badarpur Yard. This reduced the burden at Badarpur. The scope of yard remodelling work was, threfore, reviewed in June, 1967 and provision of 4 sorting lines was considered adequate. Another review was made in March, 1969 and provision of two lines only was considered sufficient. The contract entered in March, 1967 was terminated after a portion of work valuing Rs. 79 thousand had been done.

5.62. In the meantime, the proposal to construct the goods shed was dropped in September, 1967 for want of traffic justification. The original justification for the goods shed was also sketchy inasmuch as it merely indicated that the new goods shed was required for providing facility of work as desired by Chief Traffic Superintendent.

5.63. The Railway Administration, thus incurred an avoidable expenditure of Rs. 1.27 lakhs on earthwork, Rs. 27 thousand on the abandoned work of goods shed and Rs. 2.99 lakhs (booked upto March, 1969) on the yard remodelling work for which the revised estimate has not yet been sanctioned. The contract for the yard remodelling work has been terminated (August, 1967) and the contractor has initiated action for claiming compensation on this account.

[Paragraph No. 29—Audit Report (Railways)].

5.64. From the information furnished to the Committee, it is seen that the scheme of Lumding subsidiary yard was finalised by the Railway Administration by the middle of 1963. The estimate for the same at Rs. 74,92,609 was sanctioned by the Railway Board on the 5th December, 1963. An envisaged in the estimates the Lumding yard was to have a capacity to receive and deal with 1040 wagons per day. The yard was commissioned in January, 1967.

5.65. The Committee were informed during evidence that after an inspection at Badarpur by the General Manager and his party in January, 1965 it was decided to remodel the yard at Badarpur. The original plan for remodelling of Badarpur Yard providing 8 sorting lines with ancillary facilities was finalised by the Railway Administration in August, 1965. The estimate for the same at Rs. 25,69,542 was sanctioned by the Railway Board on the 9th December, 1966 and a contract costing Rs. 10.37 lakhs was awarded in March, 1967.

5.66. In a note submitted to the Committee, it has been stated that at the time of the finalisation of the estimate for the orginal plan of remodelling, the traffic anticipated to be dealt with in the Badarpur yard was as under:

	No. of trains daily
From Lumding	8
From Silchar direction	2·5
From Karimganj direction	3·5
	14·0

5.67. Asked to state the justification for the decision to develop the Badarpur Yard in 1965, the Railway Board have furnished the following note:

"There had been an increase of more than 100 per cent in the goods traffic dealt with by the Badarpur yard during the

year 1964 over 1963. The daily average number of wagons dealt with at Badarpur yard in terms of 4-wheeler was 94 in 1963, which more than doubled itself during the year 1964 reaching a level of 216 wagons daily. This traffic had further gone up to about 240 wagons on an average per day during the period from January to November, 1965. With the total suspension of traffic to these areas *via* Pakistan, Badarpur yard was expected to be called upon to handle more and more traffic to cater for the needs of Cachar and Tripura areas, which had necessarily to move by the All India Rail route *via* Bongaigaon-Gauhati-Lumding. The facilities available at the Badarpur yard were found to be inadequate to handle the increased traffic. It was, therefore, considered necessary to remodel the yard with provision for 8 sorting lines and ancillary facilities. It was decided to remodel the Badarpur Yard on priority basis particularly since the Lumding Yard had not yet been completed and the prospects of its early completion were not very bright. The review of the remodelling scheme became necessary after the experience gained in the work of the newly opened (from 1.1.1967) Lumding Subsidiary Yard."

5.68. The Audit have made the following comments on this point:—

"It has been stated that it was decided to remodel the Badarpur yard on priority basis particularly since the Lumding Yard had not yet been completed and the prospects of its early completion were not very bright. It may be mentioned that the remodelling work of Badarpur yard was sanctioned in December, 1966 and the contract costing Rs. 10.37 lakhs was awarded in March, 1967. Since the yard at Lumding was commissioned in January, 1967 the need for sanctioning the remodelling work at Badarpur yard and awarding the contract for this work could have been reviewed in the light of these developments. It appears that the development of the Lumding yard and its potentialities for dealing with Hill traffic were not kept in view at the time of finalising the plans for developing the Badarpur yard."

5.69. The Audit para states that besides the remodelling of Badarpur yard, a contract for 6.5 lakhs Cft. earthwork valued at Rs. 1.13 lakhs was awarded in December, 1964 in connection with the cons-

truction of a goods shed. This work was ultimately dropped in September, 1967. The Committee desired to know the justification for the provision of goods shed at Badarpur and the reasons for which it was ultimately abandoned. The Railway Board have in a written note explained as under:

> "The provision of goods shed at Badarpur was included in the Final Work Programme for 1958-59. The volume of traffic being handled at that time was of the order of 9 wagons load and 350 packages inward and 370 packages outward daily. To meet this volume of traffic, it was necessary to have a goods shed, a platform and necessary parking space and the approach road. After taking into account certain commodities which would be dealt with in the open space, it was considered that a minimum of 1500 sq. ft. of covered accommodation would be required for dealing with the small traffic as well as wagon load traffic requiring covered accommodation.
>
> At the time when the proposal to contruct the goods shed was dropped, *i.e.* in September, 1967 there was still justification for providing a goods shed, but considering the overall financial position it was decided by the Railway Administration in the interest of economy to manage the work without providing a full-fledged goods shed thereby saving not only further investment but also recurring expenditure on additional commercial staff and maintenance cost."

5.70. The Audit have made the following comments on this point:—

> "There was no indication in the justification for the construction of the goods shed that 9 wagons were dealt with daily at Badarpur at that time. It would, however, appear from the DOS Lumding's notings dated 8.6.1967 that the number of wagons dealt with at Badarpur was 0.5 or even less per day. The F.A. & C.A.O. in his D.O. letter No. PNO|FA|57|2260|131, dated 30.6.1970 to the C.C.S., N.F. Railway also reiterated this fact and stated that the justification for the goods shed was sketchy and that there was hardly any justification for provision of a goods shed at Badarpur. In view of this position it would not appear to be correct to say that in September, 1967 when the proposal to construct the goods shed was dropped, there was still justification for providing a goods shed at Badarpur."

5.71. According to Audit para following the decision to remodel the yard, the site of goods shed on which the work was in progress was changed but the earthwork was continued even thereafter. Explaining the reasons for this, the Chairman, Railway Board stated in evidence that although the site of goods shed was shifted the earthwork was required to be done as that particular site was to be utilised for remodelling of the yard. In answer to a question he replied:

> "It was not a waste. Because it would have been used in the yard. First of all, they dropped goods shed proposal on economy measure. And now, as I say, first it was decided that they will not require 8 lines. They got four lines. Now, they want two lines, to which also, we have not agreed yet."

5.72. In a written note, the Railway Board have stated:

> "The Badarpur Yard remodelling proposal has not been abandoned, but its scope has been reduced. The Railway's estimate for the reduced scope of work is under examination of the Board."

5.73. The Audit para states that the contract for the yard remodelling work has been terminated and the contractor has initiated action for claiming compensation on this account. The Committee were informed that the claim of the contractor for Rs. 2.11 lakhs had been referred to arbitration. This has, however, not been finalised as legal issues about eligibility of one of the nominated Joint Arbitrators are being sorted out.

5.74. Asked to state the grounds on which the Railways were contesting the case, the Chairman, Railway Board replied: "There is a provision in the contract that if for unforeseen reasons the work is stopped at any time, the contractor can claim only payment for the works done and for nothing else. We are paying him for the work done. He has to be paid for the work done and for any materials brought on the site."

5.75. The Committee note that the estimates which envisaged creation of capacity at Lumding Yard to receive and deal with 1040 wagons per day had been sanctioned in December, 1963 and the original plan for remodelling of Badarpur Yard providing 8 sorting lines with ancillary facilities was finalised by the Railway Administration

in August, 1965. The estimate for the Badarpur Yard remodelling work was sanctioned in December, 1966 and the contract costing Rs. 10.37 lakhs was awarded in March, 1967. The contract was terminated in August, 1967 after a portion of work valuing Rs. 79,000 had been done.

5. 76. The Committee regret to observe that the Railway Administration failed to make a realistic appraisal of their requirement in January, 1967 when the new yard at Lumding was commissioned. They proceeded with the awarding of the contract for the Badarpur Yard remodelling work in March, 1967, without taking into consideration the fact that following the commissioning of the Lumding yard trains marshalled therein could by-pass Badarpur Yard. The decision arrived at in August, 1967 for terminating the yard remodelling work could well have been taken in January, 1967 itself.

5.77. The Committee are also unhappy to note that work awarded in December, 1964 in connection with the construction of a goods shed was ultimately dropped in September, 1967 for want of traffic justification. Although the project was ostensibly dropped on grounds of economy, from the information made available to the Committee it appears that there was hardly any justification for the provision of a shed at Badarpur. The Committee would like to emphasise that such projects should be undertaken only after most careful planning and taking all relevant factors into account.

5.78. The Committee would also like to be apprised of the outcome of arbitration proceedings initiated by the contractor for claiming compensation on account of termination of the contract.

Central Railway—Avoidable Expenditure on Sales Tax

Audit Paragraph

5.79. As per the standard conditions of contract and practice on the Central Railway, cement required for use on works executed through the agency of contractors is supplied by the Railway and the use of 'bazar' cement is prohibited. This procedure was not followed in respect of two contracts for casting of foundations for overhead equipment on Igatpuri-Bhusawal Electrification Project, where the contractors were asked to use cement procured by them from the bazar direct. For the cement procured by the Railway, sales tax is payable at 3 per cent *ad-valorem*. The rates quoted by contractors for these two works were inclusive of sales tax on cement (the prevailing rate being 6 per cent of the value thereof) with a rider for full reimbursement if sales tax actually paid was more. The contractors paid sales tax at 10 per cent of the value of cement (leviable to local dealers) and this was reimbursed by the Railway.

5.80. For other works on the project, either carried out departmentally or through the contractors, the Railway Administration themselves had procured cement and had paid sales tax only at 3 per cent of the value of cement. Cement required for the project was held in stock at a number of convenient places to facilitate issuing to the various works. With an organisation already set up for procurement and distribution, it was possible for the Railway Administration to supply cement to these two contractors also.

5.81. The departure from the standard conditions of contract and practice regarding supply of cement in respect of these two contracts entailed an extra expenditure of Rs. 93,445.

[Paragraph No. 30—Audit Report (Railways), 1970.]

5.82. The Committee enquired why a departure was made from the Central Railway's standard conditions of contract and practice regarding supply of cement required for use in the two contracts referred to in the para. In a note, the Railway Board have explained:

"Unlike the Civil Engg. Contracts where the cement forms bulk of the supply portion and is also concentrated in the localised spots of usage, cement content of Electrification Contracts is comparatively nominal (only 5 per cent) of total work content and spots of usages are widely scattered. In IBRE, cement was to be utilised @ .65 cu.m|location at approx. 14,000 track site mast|anchor foundations. This would represent distinctly different and special working conditions for OHE contractors. Further conditions of working for OHE contracts are admittedly more onerous by way of execution of work in scattered locations nedding arrangements for cement|water|aggregate|labour|equipment to be shifted from location to location, without any special arrangements for storage of cement. The end results (foundation for track side structures) are integral part of OHE equipment whose reliability is of major importance from safety angle. It would be conceded that defective items of supply (other than cement for concreting) could be easily identified even in the completed work and replacement sought and safety ensured. On the other hand, enforcement of quality clauses included in the Tender Papers/Agreements for supply of cement alone on such scattered scale (both physically and on time index) would be highly cumbersome, expensive and, therefore, unnecessary. It was,

therefore, contractually and administratively preferable to tie the contractor to his guarantee obligations of his end results. Supply of cement by Railway under these working conditions would have introduced an element of dual responsibility and might have mitigated against the contractors' Guarantee Obligations in this regard and would, therefore, be not in the Railways' interest. Cement being an essential ingradient of the OHE Contractor's working complex, matching of cement supply with the requirements of the various work locations is very essential to avoid idling of Contractors' labour and consequent claims. Further, as the cement was a controlled item, the Railway was disinclined to take the unjustifiable risk of taking this responsibility, with a view to avoid likely claims arising out of the idling of the Contractors' labour."

5.83. From the information furnished to them, the Committee find that Railway's stores depots with a capacity of 750 MT were located at Nasik Road, Manmad and Bhusaval and these depots served to issue materials, including cement, to Civil Engineering Contractors. Asked why could the cement required not have been stored in these depots and issued to the contractors, the Railway Board replied:

"Being of limited capacity, these depots were not suitable for handling larger quantities of cement required for OHE works. Besides, these depots were not provided with facilities for stabling and loading of contractor's material/ trains. Accordingly, had the railway decided to disburse cement from these depots, the cement would have had to be delivered to the contractors at Pachora and Devlali which would have entailed extra expenditure. Also the storage capacity of these depots would also have needed to be augmented. Instead, however, it would have been appropriate to set up storage capacity for Railway cement by building additional depots at Devlali and Pachora so that handling over of cement to the contractors at their own depots could have been done straight away and not involved any transport. However, it has been assessed that in so arranging for supply of cement from these newly established depots at Pachora and Devlali to the OHE contractors, the Railway would have to incur a commitment of Rs. 2.1 lakhs in addition, which would have been more than the purported loss in this case."

In the context of satisfactory experience on previous Electrification contracts where the supply of cement alongwith other components etc. had been left to the contractors, as also in consideration of special working conditions for OHE contractors and to ensure that the contractor is firmly tied to the guarantee obligations regarding the reliability of the OHE foundations (which is so vital for safety) it was considered desirable that the cement should be supplied by the contractor alongwith other equipments particularly when the cost of cement constituted only 5 per cent of the work-content of the OHE contract."

5.84. The Committee are informed that according to estimates 10,000 tonnes of cement valued at Rs. 16 lakhs was required for use on these works. The dates when the contracts for these works were awarded and the dates of their completion are as given below:

	Date of award of contract	Date of completion
Group 18—Igatpuri—Nandgaon	7-8-1964	May, 1968
Group 18—Nandgaon—Bhusaval	31-3-1965	March, 196

5.85. It is seen from the above that practically both the works took about 4 years each for completion. The average quantity of cement used each year would come to 2,500 tonnes. According to Audit, a quantity of 3000 bags of cement was issued from Railway stock during 1965-66. The Committee also understand from Audit that in 1965-66 a cement depot existed at Devlali and minor depot was also there at Pachora.

5.86. The Committee find that there was no overriding justification for making a departure from the standard conditions of contract and practice under which the use of 'bazar' cement was prohibited in works executed through the agency of contractors. They are not convinced by the explanation that the Administration would have been called upon to incur extra expenditure on storage depots if they had undertaken to supply Railway cement to the contractor. The average quantity of cement used on the works referred to in the para, each year comes to about 2,500 tonnes. This much of cement could have been issued from the three cement depots already existing and two more depots set up at Devlali and Pachora which according to Railway Board did not have any transport facilities for delivery of cement to the contractors. Such an arrangement, besides avoiding an extra expenditure of Rs. 93,445 on account of Sales Tax would have ensured that 'bazar' cement which

is prohibited was not used by the contractor. The Committee are of the view that deviation from the prescribed procedure should not be resorted to unless there are compelling circumstances to warrant other action.

South Eastern Railway—Non-recovery of extra expenditure on the execution of a work

Audit Paragraph

5.87 Earth work, construction of bridges, quarters etc. in connection with the doubling of the line between Drug and Kamptee was entrusted to a contractor in January, 1959, after inviting open tenders. The entire work valued at Rs. 6.89 lakhs approximately was to be completed by the end of March, 1960. Due to non-finalisation of bridge drawings, delay in supply of cement and non-finalisation of yard plans etc. by the Railway Administration, the completion date was first extended to 30th June, 1960 and again to 28th February, 1961 due to delay in issuing work orders and non-finalisation of type of bridges to be constructed and yard plans. In October, 1960 the contractor applied for further extension of completion date upto 30th June, 1961 on the ground that monsoon was just over but this was not agreed to by Railway Administration though they were agreeable to grant extensions upto 31st May, 1961. Ultimately, in May, 1961, the contract was terminated after giving due notice to the contractor and reserving Railway's right to get the remaining work done at contractor's risk and cost.

5.98. The defaultant contractor sought arbitration in November, work valued at Rs. 2.22 lakhs (approx). The value of the work had been reduced to Rs. 3.48 lakhs and the residual works costing Rs. 1,26 lakhs were completed by the Railway Administration partly by the agency of a new contractor and partly departmentally during April, 1962 to June, 1963, at an extra expenditure of Rs. 1.09 lakhs against security deposit and outstanding dues of the contractor amounting to Rs. 63 thousand were available with the Railway.

5.89 The defaultant contractor sought arbitration in November, 1963. As the Railway Administration failed to appoint an arbitrator, the Contractor initiated proceedings in the Court. Following the failure of the administration to submit a panel of arbitrators on its behalf within the stipulated time of one month from the order of the Court, i.e. by 17th February, 1966, the Cout appointed a Retired District Judge as the sole arbitrator in May, 1966. The Railway Administration pleaded for an award of Rs. 46 thousand representing the net amount due from the contractor. The arbitrator, however, gave an award in October, 1968 against the Railway for the

payment of Rs. 65 thousand withheld by the Railway plus proportionate legal cost of Rs. 4,000 to the contractor on the ground that the Railway Administration delayed the issue of work orders and drawings, failed to grant reasonable extension asked for by the contractor; thereafter delayed the commencement of the left over work itself and were themselves responsible for the slow progress of the work. The Administration's failure at different stages resulted in incurrence of an extra expenditure of Rs. 1.13 lakhs.

[Paragraph No. 31—Audit Report (Railways), 1970.]

5.90 The Committee asked for the reasons for the delay in the finalisation of bridge drawings, yard plans and supply of cement to the contractor. In a note furnished to the Committee, the Railway Board have stated:—

"As the work has sanctioned under Urgency Certificate, the work of preparation of various plans was taken up simultaneously with the calling of tenders for expediting works and it was expected that the approved yard plans would be available by the time the contractors were awarded and work orders issued. But unfortunately, the delay occurred in finalisation of the yard plans, mainly due to the discussions with the Regional and Headquarters Office of Commercial and Signal departments which was unavoidable. This delay was adequately compensated by the extensions granted to the contractor from time to time, last extension being upto 28th February, 1961.

There was no delay in supply of cement as verified from the records."

5.91 The Committee enquired whether the extension granted upto 28th February, 1961 was considered sufficient and reasonable to cover the delays in the Supply of bridge drawings and yard plans etc. The Railway Board have stated in reply:

"The extension granted upto 28th February, 1961 for bridge works and 31st May, 1961 for yard works was considered sufficient and reasonable to cover the delays in the supply of bridge drawings and yard plans etc. The works comprised earth work in formation, bridge works and miscellaneous building works etc. Even though all the detailed bridge drawings and yard plans were not ready at the

time of issue of first set of work orders, the contractor commenced earthwork, buildings and miscellaneous works for which type drawings|designs were available. The last drawing was finalised in November, 1960.

But the fact remains that due to abadonment of works by the contractor as early as in first week of April, 1961 though there was time upto end of May, 1961, any further extension of time would have been futile. Had he shown any evidence of earnestness in work, there is no reason to believe that the Railway Administration would not have considered extension of time upto end of June, 1961 or even beyond."

5.92 The Audit para states that in October, 1960 the contractor applied for further extension of completion date upto 30th June, 1961 on the ground that monsoon was just over, but this was not agreed to by Railway Administration though they were agreeable to grant extension up 31st May, 1961. Explaining the reasons for not granting extension upto 30th June, 1961, the Railway Board have stated:

"From the very start, the contractor was not serious about the work and was procrastinating as will be evident from the fact that as many as 36 communications had to be made to him between the period from June, 1959 to April, 1961. He made no arrangements to improve the pace and progress of works and ultimately abandoned the works in April, 1961. The fact that he asked for third extension upto June, 1961 did not imply or carry with it a sense of assurance that he would complete the works.

In fact during their inspection, the District Engineer on 10th April, 1961 and Assistant Engineer (D)/Bhandra Road on 19th April, 1961 found that not a single labourer was working on the above works indicating that the contractor had virtually abandoned the work. The Administration after giving the contractor enough chances was constrained to rescind the contract on 30th May, 1961 after observing the necessary formalities. It is pertinent to point out that the original time of 14 months stipulated in the agreement was from time to time extended to 28 months and even then the contractor could not complete about 50 per cent of the work entrusted to him. This

being so and noticing that the contractor did not muster men and material to do the work with any sense of earnestness even in April, 1961 i.e. after 27 months from time to time of executing the agreement, it would have been futile to expect him to complete the works to the tune of Rs. 2.08 lakhs as per actual work orders issued either by May, 1961 or June, 1961. The value of work completed within 27 months was Rs. 2.22 lakhs only. It would have, therefore, mattered little whether extension was given upto May or June, 1961 as the period of only one month would have been of little avail to complete the balance work. From the way the extensions were granted from time to time, it could easily be inferred that further extension beyond May, 1961 also would have been given if only the contractor had shown reasonable progress of works and not abandoned the works as he did in April, 1961."

5.93 The Committee enquired about the reasons for the delay in the commencement and completion of the residual works left out by the contractor. The Railway Board have explained:

"As regards delay in commencement of the left over work, it was unavoidable as the administration had to take about 10 months' time to fix the second contractor for left over work in view of the following facts:—

Immediately on rescinding the contract on 30th May, 1961, notice was given to the contractor to attend measurements on 2nd June, 1961. The District Engineer submitted the details for calling of tenders for completion of residual works by 15th June, 1961 and tender notice was sent to P.R.O. for publication by 21st August, 1961 after getting the same vetted by Accounts. Tenders were opened on 22nd September, 1961. Negotiations were held on 21st December, 1961 and the only tender received was rejected due to high rates quoted as given below:

(i) Miscellaneous work—75 per cent above Schedule.

(ii) Earth work within—150 per cent above.

(iii) Earth work beyond free lead with catering—175 per cent above.

Fresh tenders were called for second time and opened on 1st February, 1962 and acceptance letter was issued on 23rd March, 1962 for work excluding the earth work at a rate of 60 per cent above schedule of rates.

The rate quoted for earth work was at 135 per cent above schedule of rates including the truck lead and at the rate of 130 per cent for earth work within free lead. The above quoted rates for earth work were considered very high and it was decided to execute the earthwork departmentally.

The response to fresh tender for getting the balance works left over by the defaulting contractor done by another contractor was not satisfactory as explained above.

The Railway administration could have easily awarded the contract at higher rates received in the first call itself and fairplay demands reasonable extra cost and not any extra cost and finally contract was awarded after a second call."

5.94 In reply to a question as to why the Administration did not appoint an arbitrator when the contractor sought arbitration in November, 1963, the Railway Board have stated:—

"Before processing the request of contractor for arbitration the assets and liabilities had to be finalised with accounts concurrence and Railway's claim on the contractor worked out. But, before this could be completed, the contractor filed an application in the court on 18th February, 1964."

5.95 To another question as to why did the Railway Administration fail to submit a panel of arbitrators on its behalf within the stipulated time of one month from the order of the court, the Railway Board have replied:

"General Manager sent the panel of arbitrators to the Railway Advocate, Nagpur, under his letter dated 4th February, 1966. Railway Advocate, Nagpur, however, submitted the panel to the court on 19th February, 1966, instead of on 17th February, 1966, the date fixed by the court. The then Railway Advocate, Nagpur, Shri P. N. Rudra was taken up with, for this lapse and was asked to explain the delay caused in the matter. But before submitting

his explanation, he retired from acting as Railway Advocate due to his old age."

5.96. The Audit para states that the arbitrator gave an award against the Railway for the reason that the Railway Administration delayed the issue of work orders and drawings, failed to grant reasonable extension and thereafter delayed the commencement of the work itself and were responsible for the slow progress of the work. The Committee enquired whether the responsibility of the staff had been fixed for these lapses. The Railway Board have stated:—

"The Railway Administration has been of the view that the delay in issue of work orders, drawings etc. has been adequately compensated by the extension of time given to the contractor on various occasions, but that the contractor did not evince any earnestness in progressing the work satisfactorily and finally abandoned the work. In view of this the question of fixing responsibility on the staff for any lapses does not arise."

5.97 The Committee are distressed to observe that although the work had been sanctioned under urgency certificate there was undue delay in finalisation of yard plans and bridge drawings. While the work was to be completed by March, 1960, the last drawing was finalised only in November, 1960. Because of this the contractor had to be given two extensions for completing the work.

5.98 The Committee also regret to observe that due to their failure first to appoint an arbitrator when the contractor sought arbitration in November, 1963 and further to submit a panel of arbitrators within the stipulated time, the Railway Administration lost a valuable opportunity. The Committee note that Railways not only forfeited their claim against the contractor but were in fact obliged to pay a big sum to the contractor as per award. The Committee would like Railways to investigate the matter fully and fix responsibility for delay and lack of care in safeguarding Railway's interests. The Railways should also take remedial measures to ensure that such lapses do not recur.

VI

TRAFFIC FACILITIES

Southern Railway—Avoidable expenditure on the facilities provided on B. G. line between Guntakal and Hospet.

Audit Paragraph

6.1. In order to cope with the increase in iron ore traffic moving between Bellary-Hospet area and Madras Port which was anticipated to rise to 2 million tons by the end of 1964 and to arrange for this traffic to run throughout without any need for transhipment or part transport by road, the Railway Administration decided to lay a B.G. line from Hospet to Guntakal in addition to the existing M.G. line. The Project estimate for the work, amounting to Rs. 6.58 crores was sent to the Railway Board in December, 1962 which was sanctioned in May, 1963. In September, 1963, the Railway Board observed that the opening of the B.G. line for passenger traffic was not justified and the new line would be used exclusively for export or traffic to Madras plus a shunting goods for serving the stations upt Hospet.

6.2. Although it was known to the Railway Administration that loading of ore traffic would be confined to 5 stations only, stations on B.G. line were provided at all the 16 places where M.G. stations were existing. This involved replacement of 7 existing M.G. station buildings by new ones, improvement in 4 M.G. stations and provision of 3 new stations for B.G. line alone.

6.3. In June, 1967 the need for having all the B.G. stations at short intervals was examined and it was worked out that even after eliminating 6 stations, out of those provided, 12 Down and 11 Up. paths would be available. The number of paths required as worked out then, for clearing even 5 million tonnes of iron ore traffic, anticipated to be reached by 1972-73 was only 10 each day. The need at present is only for 3 trains each way on an average. In July, 1967 orders for closing 3 stations provided at a cost of Rs. 2.04 lakhs (excluding the cost of signalling equipments) were issued. In March, 1968 the Construction Branch recommended the closure of 3 more stations. Final decision has not, however, been taken

for closure of all these six stations. The saving in recurring expenditure on staff alone was estimated at Rs. 50 thousand per annum for the stations under consideration in June, 1967.

6.4. If the provision of the stations on the B.G. line had been guided by the needs of iron ore traffic for which it was constructed, the expenditure incurred on the construction of the superfluous stations could have been avoided.

[Paragraph No. 32—Audit Report (Railways), 1970.]

6.5. The Committee desired to know the reasons for converting Guntakal to Hospet line into a B.G. line. A representative of the Railway Board stated during evidence: "This Guntakal-Hospet line used to be originally metre-gauge line. And there is a large amount of iron ore reserve around Hospet. This reserve was moving to Madras harbour mainly, and also to Cuddalore, Goa and so on. It was decided that 2 million tonnes of iron ore had to be moved by rail to Madras. Therefore, it was felt that the existing M.G. line would not be capable of handling 2 million tonnes of iron ore. So, with that view in the background, it was decided to convert the Guntakal-Hospet line into BG line. Another consideration of course, was that this line was fairly busy, and there was one continuous M.G. line from Guntakal right up to Hubli, and onwards to Goa on one side and Poona on the other. At that time, the thinking was that Guntakal-Hospet conversion would be more or less the first link of the conversion. Simultaneously surveys were ordered for converting Poona-Londa into BG line, and also Hospet-Goa line. This is the background under which the conversion of Guntakal-Hospet line was undertaken."

6.6. The Committee were informed that originally the intention was that passenger traffic would be carried. But somewhere round about 1963, a decision was taken that there will be no passenger traffic on this line till further orders.

6.7. The Committee enquired what was the necessity of having 16 stations when there were only 5 loading points on the section. A representative of the Ministry explained during evidence, "In the first place, I said, it was visualised as part of a complete conversion right through from Guntakal and Poona. The Main consideration was that ultimately 2 million tonnes iron ore had to be moved by diesel traction but initially, we had to be prepared for moving the iron ore by steam traction. Assuming double headed steam engines were used each train would carry about 17 to 18 hundred tonnes gross whereas a diesel engine could take 3600

tonnes. Therefore in fact, it meant that the section has to be prepared for an average traffic on approximately six trains a day. When I say on an average, I mean that there would be fluctuations up and down sometimes. There is also a certain bunching effect in as much as the iron ore is not loaded round the clock, but during the day time only. So, the traffic is not uniform. Further the section on the Bombay-Madras line is a highly saturated section, and it is very difficult to get into the branch line. One of the most serious consideration was that this line would be a new line and this line would be built on what we call black cotton soil. This soil is notoriously unstable and it takes a long time to settle. During the period of consolidation, which in our experience takes four to five years, we had to be prepared for very severe speed restrictions. Normally, our goods trains are permitted to run at 40 miles per hour. The permissible speed for a long time here was 32 kilometre per hour. Taking all these things into consideration and taking the fact that initially there would be steam traction, it was considered necessary to open all the sixteen stations. If the full traffic of 2 million tonnes came which was definitely promised to us, but which for reasons did not materialise, all the sixteen stations would have been essential".

6.8. In a written note on this point, the Railway Board stated:

"The work was included in the works programme for the year 1962-63. With the provision of B.G. line parallel to M.G. line, it was considered desirable to provide facilities for inward and outward traffic at these stations so that the advantage of through B.G. link to and from B.G. stations could be taken thereby eliminating transhipment at Guntakal. Besides, although diesel traction was assumed in the Project Report, in the initial stages, due to inadequate availability of diesels, steam lomocotimes had to be used on this section and, therefore the requirement of capacity was more than under diesel traction. The need for provision of these facilities had also to be viewed in the context of possible extensions of B.G. to other sections in the region. The work of conversion of Poona-Miraj section into B.G. had already been included in 1963-64 Works Programme while survey was in progress in respect of Hospet-Marmagao-Miraj section. With these extensions, there would be heavy build-up of traffic on this B.G. line besides further increases in the movement of iron ore for export up to a projected level of 5

million tonnes, Board had also in view, at that time, that a few passenger and shunting goods trains would eventually run on this section. Besides, during the initial period after construction, the movement was expected to be slower due to speed restrictions as the line is laid mostly on black cotton soil. The fact of the Guntakal-Hospet section being a feeder line, taking off from the trunk route between Bombay and Madras which was also likely to lead to loss of paths on the new branch line, with trains being held back for entry to the mainline depending on the state of traffic on the trunk route, had also to be kept in view. There is also light engine running on account of pattern of operation on the Hospet-Guntakal section *viz.*, after dropping a rake for loading or for picking up a loaded rake.

It was in view of these factors that provision of all the 16 stations, as were existing on the M.G., was planned on the B.G. also. However, in view of the slower growth of traffic and complete dieselisation of through services three stations have been closed temporarily.

It may also be pointed out that ore traffic from Hospet area to Madras is expected to come up to about 5 million tonnes by 1974-75, besides the movement of traffic on account of the proposed steel plant at Hospet. It is, therefore, necessary to retain the block stations already provided for".

6.9. Asked whether the number of stations had any relationship with the loading points on the line, the witness stated: "A large number of trains 6—8 trains, will have to move under steam traction. The number of loading stations has got no connection with the total number of stations. The number of loading stations may be even one, even then these stations should be required. It is the number of crossing stations that would be needed."

6.10. To a question as to what were the facilities provided at the stations/yards on the basis of steam traction, the Railway Board have replied:

"No separate facilities were created for steam traction. The existing watering facilities for MG track have been extended to the BG also. Of the 3 stations mentioned above one ash pit with a water column connected to South

Central Railway and manned by their staff have been provided at Daroji. At Guntakal West, temporary water tank has been provided with sleeper staging only."

6.11. The following statement gives the inter-station distances on written note, the Railway Board have stated:—

	s
Guntakal—Guntakal West	5·54 Km.
Guntakal West —Bantanhal	7·40 ,,
Bantanhal—Baivanhal	6·97 ,,
Baivanhal—Virapur.	8·59 ,,
Virapur—Hagari	8.66 ,,
Hagari—Haddinagundu	7·47 ,,
Haddinagundu—Bellary	6·52 ,,
Bellary—Bellary Cantt.	3·57 ,,
Bellary Cantt.—Kolagallu	6·53 ,,
Kolagallu-Kudatini	9·78 ,,
Kudatini--Daroji	6·92 ,,
Daroji—Tornagallu	5·75 ,,
Torangallu-Gadiganuru	7·06 ,,
Gadiganuru—Papinayakanahalli	11·99 ,,
Papinayakanahalli—Kariganuru	6·90 ,,
Kariganuru—Hospet	6·30 ,,

6.12. The Audit para states that after examining the need for stations in the section between Guntakal and Hospet the abolition of six stations was recommended. However, only three stations were ordered to be closed in July, 1967 and the remaining three stations have not been closed so far. The Committee desired to know the reasons why these three stations have not been closed so far. In a written note, the Railway Board have statel:—

"In the middle of 1967 with the complete dieselisation of through sources, and due to delay in the development of traffic, the question of temporarily closing some of the crossing stations was considered. The Divisional Superintendent, Guntakal, suggested temporary closure of the following 6 stations which would result in a recurring saving of Rs. 49,000|- per annum on the staff employed at these stations:

1. Kudatini
2. Kolagallu
3. Haddinagundu
4. Hagari
5. Baivanhal
6. Bantanhal

This matter was considered carefully in the Headquarter. keeping in view the pattern of traffic on the section involving light engine running, passage difficulty across Guntakul on the main Bombay-Madras trunk route and requirement of train services including departmental and shunting trains, it was decided that only 3 stations could be closed down. In coming to this conclusion the following factors were taken into account.

(i) The Hospet-Guntakal section is only a feeder line taking off from the main trunk route between Bombay to Madras. The traffic moving on the Hospet-Guntakal section has to be fed into the main stream of traffic on the Bombay-Madras route which is a saturated section. It is not always possible to get into the Guntakal-Madras section as and when a goods train from Hospet approaches Guntakal since this depends on the state of traffic on the main line. Similarly, the movement of empty box rakes received from the Madras end and moving from Guntakal to Hospet is also affected by the condition of traffic on the trunk route. This results in loss of paths on the Branch line.

(ii) Provision has to be made for or path each way for running departmental trains, besides similar provision for a shunting train. The effective capacity for through service is thus much less than the chartered capacity.

(iii) Further since Kolagallu and Haddinagundu were closed and if Kudatini was also closed, the block section from Bellary Cantonment to Daroji would become very long i.e. 23.23 Kms. The closure of Hagari would also have increased intersectional distance of the block section to 22.65 Kms. Similarly the closure of Bantanhal would have led to Guntakal West-Virapur block section becoming very long i.e. 22.65 kms. Presence of such long block sections would have reduced the fluidity of operation on the section.

(iv) The question of throwing open Guntakal-Hospet for goods traffic progressively was also in view at that time. This would necessitate running of additional road goods and other trains for clearance of general goods traffic. The question of extension of B.G. from Hospet-Hubli and conversion of Goa-Hubli Miraj was also under contemplation, with the result that passenger traffic would

have to be introduced on the new BG. The ore traffic from Hospet area to Madras is also expected to go up to 5 million tonnes by 1974-75. Besides, there would be substantial increase in the traffic requiring movement on this section consequent to the setting up of the proposed steel plant at Hospet.

The above factors were taken into consideration and closure of only 3 stations, therefore, was decided by the Southern Railway administration".

6.13. The Committee enquired as to what were the considerations on which the closure of 3 more stations|yards was recommended by Construction Branch in March, 1968 and why these stations had not been closed so far. In this connection the Railway Board have stated:—

"The closure of 3 more stations was recommended by the Construction Branch in March, 1968 due to the following reasons:—

(i) *Daroji*—Inter-station distance from adjacent stations is 5.75 Kms. This station is too closely spaced to Tornagallu and Kudatini.

With diesel traction, watering at Daroji can be cut out.

(ii) *Bellary Junction*—If there are no bookings at Bellary and no watering is required for diesel traction, crossing facilities at Bellary Junction may be unecessary especially when only through traffic is being dealt with and inter-station distance from Bellary Cantt. is only 3.57 Kms.

(iii) *Guntakal West.*—Since only disel traction has been introduced, it was felt that Guntakal Auxiliary yard may not be necessary as it was quite close to Guntakal (4.54 Kms.).

This matter was considered carefully in the Headquarters office. The closure of these 3 stations was not agreed to on the following considerations:—

(a) Pattern of operation of Hospet-Guntakal Section was taken into account. The empty block rakes are first worked into Hospet for intensive train examination and attention before being moved to the loading points, as facilities

for such examination had been developed only at Hospet. This entailed light engine running-for the diesels to pick up the loaded rakes from the section after leaving the empty load at Hospet or coupled steam engines working the empty rake after examination at Hospet to the loading point and returning back light to Hospet. The actual requirement of paths was, therefore, more than would be the case for train services necessary if such light running was not involved.

(b) As Hospet-Guntakal line merges with the main stream of traffic over the Bombay-Madras route, where various subsections were working to saturation, the trains from Hospet-Guntakal line had limited paths available on the main-line. To this extent, some of the paths on Hospet-Guntakal line were only notional and it was, therefore, not considered desirable to reduce the operational flexibility further.

(c) Besides, Daroji is an Auxiliary watering station and whenever the water source at Hospet or Kariganuru failed, steam locos were required to take water at this station.

Bellary Jn. could not be closed as it was being opened for the booking of general goods traffic.

Guntakal West was treated as an Auxiliary Yard and also facilitated regulation of trains whenever there was difficulty at Guntakal."

6.14. The Committee pointed out that it was apparent from the Audit para that the estimation of having 16 stations was too optimistic and when the project was undertaken it was not properly considered. Afterwards the Railways had to close down some stations. The representative of the Railway Board stated: "The reasons why we closed down the stations are different. In 1967, we did this. At that time, the initial stage of steam traction was over, and full dieselisation had come in.....We knew that when full dieselisation would come in, all the stations may not be required, but during the period the traffic had to be moved with steam traction, the stations were required. With steam traction, because the trains carry on much lesser load, the number of trains required would be more."

6.15. The Committee are informed that the expenditure incurred one the provision of the three stations which have since been closed was Rs. 2.04 lakhs (excluding the cost of signalling equipment. Similarly the initial expenditure on the 3 crossing stations viz. Kudatini, Hagari and Bantanual which were recommended for closure by the Divisional Superintendent but which have not been closed was Rs. 6,89, 742 and the annual recurring expenditure thereon is Rs. 38,148.

6.16. The Committee are further informed that the expenditure on the three stations recommended for closure by the Construction Branch but which have not been closed so far is as under:

Station	Expenditure on Station	Approx. Annual expenditure on staff
Daroji	Rs. 1,16,047	Rs. 11,040
Ballary	Rs. 2,42,195	Rs. 29, 016
Guntakal (West)	Rs. 96,994	Rs. 29,796
	Rs. 4,55,236	Rs. 69,852

6.17. The Committee desired to know the present and anticipated quantum of ore traffic expected to move over this section and requirement of paths for the same. The Railway Board have stated:

> "The present quantum of traffic is of the order of two million tonnes per year and the anticipated movement is 3 million tonnes by 1973-74 and 5 million tonnes from 1974-75 onwards. The requirements of paths for the anticipated movement of 5 million tonnes of iron ore is 13 each way".

6.18. The Committee enquired as to the number of trains for which path would be available if the six more stations (3 out of the six recommended for closure in June, 1967 and 3 more recommended for closure in March, 1968) were closed. In a note the Railway Board have stated:

> "The net effective number of paths that would be available if the 6 stations more are closed will be 8 each way, and would, therefore, be far short of the requirement. The movement of traffic to and from the proposed Steel Plant at Hospet would also increase the capacity requirements on this section."

6.19. The Committee understand from Audit that "as per General Manager, Southern Railway's Annual Narrative Report 1966-67, the line capacity as on 31st March, 1966 and 1967 was 16 trains each way per day against which the actual utilisation was 2.6 and 4.5 trains

each way. At present the need is only for 3 double headed Box trains each way. In fact the capacity required even for the clearance of 5 million tons of ore targetted to be moved by 1972-73 as worked out by the Transportation Branch of the Southern Railway itself would only be 10 trains each way. As against this requirement, the line would still be capable of accommodating 12 trains in down direction and 11 in up direction even after the closure of six stations recommended by the Divisional Superintendent."

6.20. According to Audit para, Railways anticipated to move 2 million tonnes of ore traffic over the new line every year. The actual traffic materialisation, however, has been as indicated below:—

Year	Traffic in million tonnes
1964-65	·84
1965-66	·96
1966-67	1·4
1967-68	1·5
1968-69	1·87
1969-70	1·93

6.21. The Committee called for copies of the complete correspondence exchanged between the Railway and the Department of Mines and Metals regarding the movement of ore on the basis of which facilities were created. In this connection, the Railway Board have stated:

> "The Proceeding dealing with this case is not traceable. However, the actual movement in 1965-66, towards the end of which the line was commissioned, was 0.96 million tonnes. It has already been brought out that this movement could not be stepped up due to difficulties in transhipment from MG to BG and increasing road movement to Timmacherala for direct loading into BG wagons. In the following year, the actual movement rose to 1.40 million tonnes and in 1969-70, the actual movement was 1:93 million tonnes. The slower development of this traffic, as compared to the anticipation of 2 million tonnes, was beyond the Railway's control".

6.22. The Committee enquired whether it was justified on the part of Railways to undertake new works to cope up with the anticipated demands put forward by MMTC. The Chairman, Railway Board stated during evidence: "What they said was that they would develop their capacity to move 2 million tonnes of ore annually and it

was not as though 2 million tonnes was going to come overnight. Simultaneously, we were told that the M.M.T.C. would be developing the capacity to give us 2 million tonnes of ore and certain steps were taken. But the point is, to judge whether we had made a mistake or not in accepting this figure, we have to go back to the days of 1961-62. It is a fact that if today you want the Railways to move 2 million tonnes of ore, probably it would be necessary to have block stations at intervals of 10 to 12 miles and it is not necessary to have block stations at 5 miles interval. But the point is, in those days the picture was different. What I am saying is, if you say that "supposing you want to move 2 million tonnes of traffic, do you want 12 miles distance for the stations or 5 miles distance, my answer would probably be 12 miles is good enough, 5 miles is not necessary". But the other factors are there.....As I said, there was a lot of optimism in those days. I can tell you because I had been General Manager for some time there. I was told that the MMTC were unable to move their traffic because the loading point has not yet gone up to Tornagallu and we had to make a temporary bridge to open the traffic, in June 1965. We were badgered about. Anyway, in those days there was a lot of optimism."

6.23. The Chairman, Railway Board added, "If you are spending six crores of rupees for handling this ore traffic, the expenditure on these stations would probably come to about Rs. 5 or 6 lakhs. So that is the background in which these were built. There is no other background and we cannot say anything else. If we have got to justify it, the only thing we can say is that there was optimism that the traffic was going to come and that if we fail we would be responsible for the failure to develop our traffic."

6.24. In reply to another question, the Chairman, Railway Board stated that "I would not say that there was lack of coordination but the fact was that we were a little too optimistic about the promise of the Corporation, as a result of which many things have happened".

6.25. The Committee enquired whether any steps had been taken to avoid recurrence of cases where the facilities are provided on the basis of estimates of traffic which do not materialise according to anticipations. The Chairman, Railway Board stated: "We have taken steps already to question every traffic forecast. The example is although the forecast of traffic at the end of Fourth Five Year Plan is 290 m. tonnes as is given by the Economic Ministries we reluctantly accepted 265 m. tonnes. We have now pushed to 240 by our pressure and may be it will come down further. We are not much pliable as we were before.....On their targets we question them and ultimately we take the figure they can reasonably explain. That is

how 290 millions at the end of Fourth plan was brought to 265 and we have come down to 240 and we might slide down further".

6.26. The Financial Commissioner, Railways added, "We realise as a commercial Ministry that we have to go to some extent by our own realistic expectations. But we also get into a lot of trouble by doing so. There was a new line being constructed in a particular State for export of iron ore. As doubts were expressed about the exportability of that particular iron ore, we had referred the matter to the Committee of Secretaries to ascertain the firm figure of traffic that could be expected. It took some time for the Committee of Secretaries to give the green signal. We were strongly criticised by the State Government and the M.Ps. from that State because we wanted to be sure about the traffic. Any direction that the Committee would give will strengthen our hands."

6.27. The Committee observe that facilities at cost of Rs. 6.58 crores were provided by the Southern Railway in the Guntakal-Hospet section in order to cope with the anticipated traffic of 2 million tonnes of ore. The actual traffic materialisation over a number of years was far below the anticipated figure with the result that facilities provided were not fully utilised.

6.28. The Committee feel that adequate attention was not paid by the Railway Administration to the scrutiny of the traffic estimates put forward by the Minerals and Metal Trading Corporation and as has been admitted by the Chairman, Railway Board, they were guided more by optimism than by the Actuality of the position then obtaining. The Committee have made some recommendations on this aspect elsewhere in the Report, which they would like to be considered by Railway Board.

6.29. The Committee are not fully satisfied with the arguments put forward for non-closure of six stations, which the Construction Branch of the Southern Railway and the Divisional Superintendent had recommended for closure. The Committee would like the Railway Board to examine afresh whether any of the existing stations can be dispensed with without in any way affecting the efficiency of operation.

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*Please see para 6.55 of the Report.

Southern Railway—Provision of excessive facilities for handling traffic from Neyveli Lignite Project

Audit Paragrah

6.30. Consequent on the setting up of Neyveli Lignite Project at Neyveli, the Railway Administration in 1963 carried out a study of additional traffic anticipated from the Project and after discussion with the Neyveli Lignite Corporation assessed the total output of the units of the Corporation at 205 wagons per day on an average. The Project was to reach the full rated production by March, 1966. Loading wage, however, expected to commence from December, 1964, at the rate of 110 wagons per day. The Railway Administration planned to develop rail capacity for loading 240 wagons per day, taking into account the fluctuations in loading. The works planned by the Railway included a terminal marshalling yard at Neyveli and conversion of an existing siding, line capacity works in Neyveli-Vriddhachalam, and Vriddhachalam-Golden Rock sections and provision of additional yard facilities at Vriddhachalam

6.31. The works costing Rs. 42.11 lakhs were finally aproved by the Railway Board. Regarding the terminal marshalling yard at Neyveli and conversion of the siding, it was, however, decided that the cost be shared equally between the Railway and the Project Authorities and in case the traffic of 205 wagons per day did not materialise within 6 months of the opening of the yard, the entire cost would be paid by the Project. This was accepted by the Project Authorities in May, 1965.

6.32. All the works except Vridhachalam Yard Facilities and a part of marshalling yard were completed during 1965 and 1966. In January, 1968 when a review was made by the Administration, it transpired that against the anticipated traffic of 205 wagons per day, the actual traffic moved was 25 to 30 wagons per day only. As the traffic continued to be more or less the same during the period April, 1968 to April, 1969 also, the Administration curtailed the scope of various works and decided to stop works estimated to cost Rs. 6.60 lakhs and cancel a portion of the work of the Marshalling Yard at Neyveli.

6.33. The works regarding terminal Marshalling Yard at Neyveli and the conversion of the siding were completed at a cost of Rs. 11.89 laks and as the Project Authorities had agreed to pay the cost thereof, in case the traffic did not materialise, the Railway Administration after adjusting the amount of Rs. 7.50 lakhs deposited by

them, have demanded the balance amount of Rs. 4.39 lakhs from them which is yet to be paid by the Corporation.

6.34. The Railway Administration have also executed the line capacity works costing Rs. 12.93 lakhs at their own cost to meet the anticipated traffic from Neyveli. The number of trains run on the section has not, however, increased and the capacity available prior to the execution of these works was adequate to handle the traffic.

[Paragraph No. 33—Audit Report (Railways), 1970.]

6.35. According to Railway Board "the prospects of traffic likely to be offered by the Nevyeli Lignite Corporation for transport by rail were assessed after detailed discussions with concerned authorities at different levels. In the joint report prepared by the Divisional Railway officers of the Tiruchirappalli Division and the Liaison Officer of the Neyveli Lignite Corporation, the following commodity-wise break-up of traffic was indicated:

Commodity	Average daily loading
Fertilizers	36
Briquettes (bagged)	55
Briquettes (loose)	55
Charifines	30
Fly ash	15
White clay	1
Fuel oil	11
Kerosene	1
Other oil products	1
TOTAL	205 wagons

Taking into account the seasonal fluctuations of traffic, it was considered that facilities should be provided for loading up to 240 wagons a day. The direction-wise break-up of this is given below:

Section	No. of wagons per day
Towards Cuddalore	20 a
Towards Tiruchirapplli Goods yard	100
Towards Villupuram	70
Towards Salem	50

The final discussions were between the Chief Operating Superintendent, Southern Railway and the Chairman of the Corporation when

the latter confirmed the prospects of traffic as given in the joint report and the distribution in various directions".

6.36. During evidence, the Chairman, Railway Board stated that "It was not only once, but twice he confirmed this figure when he was present in a meeting. In the contract, it was provided that if this traffic as was forecast by him did not materialise, the cost of the marshalling yard within their premises will be borne entirely by them".

6.37. The Committee desired to be furnished with output figures indicated initially and the levels of traffic that actually materialised. The relevant figures furnished by the Railway Board are tabulated below:

Commodity	Aanticipated average daily loading (in wagons)	Actual materialisation (daily average no. of wagons loaded)				
		1965-66	66-67	67-68	68-69	69-70
Fertilizer	36		6	7	13	15
Briquettes (Leco)	110	5	10	16	18	22
Char Fine	30	Negligible				
Fly Ash	15					
White Clay	1					
Fuel Oil	11					
Kerosene	1					
Other Oil Products	1					
	205	5	16	23	31	37

6.38. As regards the reasons for the shortfall in the anticipated traffic, the Railway Board have stated in a written note as under:

> "The efforts made to ascertain precise reasons for the shortfall in production and the non-materialisation of the anticipated traffic have not yielded fruitful results. The D.S., Tiruchirappally and the D.O.S. Tiruchirappally were requested to contact the NLC authorities and ascertain the precise reasons. After contacting the NLC authorities, they intimated that the only reason given by the authorities is that there was shortfall in production and hence the traffic as initially anticipated did not materialise. The D.S., Tiruchirappally was also told that a portion of the

production was moving by road, particularly over short distances, since the retail distribution of small quantities of urea and leco to outlying villages and towns was easier and more convenient by road transport. To the specific query as to why there was a shortfall in the anticipated production there was no answer".

6.39. The Committee desired to know whether any assessment was made in March, 1966 to see that the traffic had actually materialised according to expectation and the execution of the work was justified. The Chairman, Railway Board stated:

"Not to that extent. We did not make a sort of critical appraisal at that time whether the firm will be sticking to their forecast.

Their forecast was that by June, 1965, they will be giving us 150 wagons per day. They gave us hardly 25 wagons. By March, 1966 they were to give us 210 wagons, but 37 wagons they gave. Some of the work we did not carry out as a result of this. Some of the work we had finished and some of the works were to be done at the full cost of the company which we are trying to get".

6.40. In a written note later on submitted to the Committee, the Railway Board have, however, stated:

"The position was under constant watch by the Administration. A number of issues relating to the provision of the required facilities for dealing with the anticipated traffic were actively being pursued by the Neyveli Lignite Corporation authorities with the Railway indicating *inter alia* that the traffic would start picking up shortly. The Deputy General Manager/T&W Neyveli Lignite Corporation advised in January, 1965 that their production would be ready for movement from about June, 1965. Loading actually commenced from September, 1965. The Chairman of the Corporation advised in April, 1965 that a complex industry like briquetting and carbonisation of lignite could not reach full production in less than two years.

The various works planned for moving the anticipated additional traffic were actually taken up for execution only

from February, 1965 i.e. after the receipt of the letter mentioned above from the Deputy General Manager/T&W, NLC. Almost all the works were completed by August, 1965 except the work at Sendurai and at the marshalling yard near the Project site. The work at the marshalling yard was stopped in January, 1966. The work at Sendurai was completed in July, 1966. After allowing a reasonable period for the anticipated level of traffic to materialise, a review was conducted in 1967."

6.41. The Committee called for comments of the Neyveli Lignite Corporation on the Audit para with particular reference to the basis for the anticipated rate of production of various commodities and the precise reasons for the shortfall in production. A note furnished by the Ministry of Petroleum and Chemicals is reproduced below:—

"It is true that the actual production has been much less than the rated capacity in the Urea Plant and the Leco Plant, the products from which were expected to be moved by wagons.

The rated capacity of the Fertilizer and the B&C Plants are 1,52,000 tonnes per annum and 3,80,000 tonnes per annum respectively. The actual production from 1965-66 to 1969-70 is given in the following table.

	Production in tonnes	
	Urea	Leco
1965-66	450	18,645
1966-67	16,157	49,246
1967-68	71,414	96,711
1968-69	89,924	130,753
1969-70	88,166	136,233

The rated capacity could not be achieved in the Fertilizer Plant due to continuing technological problems and teething troubles such as clinkering in gas generators, failure of super-heater coils of the waste heat boilers in the gas generators, failure of the refractory work in the genera-

tors limitation of the condenser capacity in the refrigeration section of the amonia plant, leaks in carbomate pumps and carbomate recycle system due to severe corrosion and tripping up of motors etc. A detailed examination of the various technological defects has since been made and remedial steps have been taken to overcome these defects. With the installation of the Benzene absorber in February, 1971 the major rectifications planned in this plant would have been completed. Minor modifications are being taken up. It is expected that substantial improvement in performance would be achieved from 71-72.

The limited production in the B & C Plant was earlier due to the slow development of the market for leco arising out of availability of competing fuel like charcoal, firewood, kerosene, gas etc. in a competitive market and the time taken to build up the market from scratch. In 1970-71 there has been a shortfall in production due to low lignite availability from the mines. Larger quantities of lignite are expected to be available in 1971-72 when the production would be brought back to 1969-70 level. However, in order to achieve optimum level of Leco production the Mine Capacity will have to be increased to 6 million tonnes by the installation of additional equipment which are on order and are expected to be installed by the end of 1971-72, whereafter alone attempts can be made to reach optimum production in the B&C Plant. The present mine capacity is only about 4 to 4.5 million tonnes and hence lignite availability for the B & C plant is not adequate. The B & C Plant is trouble free and there would be no difficulty in stepping up production provided sufficient quantity of lignite is available".

6.42. The production and movement of major items of finished products of various units of the Corporation is given in the table below:

(Figures in tonnes)

	By road	By rail	Total
I. Leco nd a eco fin·s			
1966-67 .	1.',983	51,372	70,355
1967-68 .	69,328	79,780	1,49,108
1968-69 .	55,381	91,327	1,36,708
II. Uera			
1966-67 .	30,032	28,970	59,002
1967-68 .	[27,772	37,574	65,346
1968-69 .	24,980	[62,667	87,647

6.43. In reply to another question the details regarding the expenditure incurred by Railways upto March, 1966 and after March, 1966 on various connected schemes have been given as under:

(Figures in thousands of rupees)

	Expenditure incurred upto March, 1966	After March, 1966
Uttangalmangalam . .	261·8	Nil
Neyveli Marshalling Yard . .	530·3	Nil
Kallagam	129·0	Nil
Kuppanatham	105·4	0·6
Ottakovil	162·5	6·5
Mathur	272·6	6·4
Sillakudi	248·6	3·4
Sendurai .	330·4	7·6
	2040·6	24·4

6.44. The Committee desired to know what remedial measures

could be taken to ensure that public sector projects did not give inflated figures of traffic. The Chairman, Railway Board observed:

> "It is very difficult for us. Except that we continue hammering them with penalties and things like that, how can we otherwise control this type of thing, Sir?"

6.45. In this connection the Financial Commissioner Railways stated as under in the evidence:

> "But it is very difficult because there are so many Ministries involved and we do sometimes get into difficulties. We get complaining letters that the Railways had arranged to move so much but had not been able to move it. The maximum quantities could be moved only if we can move at a uniform level. But when the production falls, the transport capacity lost could not be recouped. We have to make allowances also for natural optimism. It becomes very difficult. So, what we did in case of Khetri Copper Project was to insist on a written agreement."

6.46. Asked whether the Railways had no say in the matter, the Financial Commissioner replied:

> "Well, in the case of Khetri Copper Project, we had a discussion with the Secretary, Mines & Metals and we raised it at the meeting of the Cabinet Secretary also. The Cabinet Secretary is also more or less a party to this agreement and the project authorities are more realistic because the Cabinet Secretary also asks questions and holds them to what they have said. But when all is said, we have to depend on what these people say to some extent".

Another witness added:

> "I can only say, as a technical person, that if there is a project which says that I am going to produce so much by such and such a date, what right have I got to say that they cannot produce it by that date? For example, I am producing diesel locomotives and I am depending entirely for my electrical equipment from Bhopal. If Bhopal gives me a forecast that for the next year they will give so many motors, I have to accept it. I can send a man to see that they keep to their promise, but I have got to accept their figure. If they are not able to fulfil it, my pro-

duction will also suffer. Similarly, supposing the coal industry says that they will produce so much coal but for various reasons they are not able to produce it, how can the Railways take the responsibility for saying whether that amount of coal will be produced or will not be produced. In any case, we have to prevent a transport bottleneck-like the one which became very serious in 1964-65 crisis. Certain amount of additional transport capacity, in my opinion, is a very desirable thing. Savings must be there, but let us not suffer on account of shortage of transport".

6.47. The Committee were also informed by the Financial Commissioner that:

"....in the important area of iron ore export because of various difficulties, we have a Committee of Secretaries of which Mr. Ganguli and I are Members. During the Committee meetings we raise all these questions. We ask them to examine critically whether the promised quantum of traffic would be ready or whether they expect any difficulties. So, wherever we are able to exercise some influence, we try to do so."

6.48. As regards the role of Planning Commission in the matter of laying down of traffic targets, the Financial Commissioner stated:

"The Planning Commission also, more or less depends on what the Ministries say. Of course they are in a better position than us and they have more of an overall view than we have. That is why we are following the Public Accounts Committee's recommendations and we are having a three-monthly meeting with the Planning Commission. It is held actually by the Planning Commission and a Railway representative attends—our Director, Railway Planning attends. It is a fact that under our pressure the Fourth Plan target has been brought down from 265 to 245 million tonnes."

"So far as this year is concerned, we have cut down the wagons order and have announced it in the newspapers. We can-

not keep on ordering wagons at original levels when we do not have the requisite traffic, and so we have cut it down. Similarly, we are keeping the revised targets in view very much in our programmes for new works."

6.49. The Committee were informed in a written note, furnished at the instance of the Committee that during the last three years there has been no case where facilities such as yards, new lines etc. were provided by Railways on the basis of estimates of traffic furnished by various public sector undertakings/private concerns but the facilities provided were not utilised because of lack of adequate traffic materialisation. It has however, been stated that the following procedure has been laid down for the scrutiny of the proposals emanating from public undertakings etc. for provision of new/additional facilities:

"While the details regarding construction of additional or new facilities as asked for by the Public Undertakings *viz.* technical matters are examined by the Engineering Directorate, the Planning Directorate thoroughly scrutinizes the proposal with specific emphasis on the question of traffic that would become available from the Public Undertakings *vis-a-vis* the facilities that would be necessary for moving this traffic. The whole proposal is scrutinised to see whether the proposal would be financially remunerative from the Railway's point of view".

"Each case is decided on its merits and the Public Undertakings are advised of the financial quantum, if any, that they would have to bear in the execution of the work. Normally, they are required to deposit their share of the cost of the work in advance. The procedure is governed by Codal provisions."

6.50. The line capacity available on the section before and after the execution of the line capacity works referred to in the Audit para,

and the average number of trains run since 1964 are indicated in the table below:

Period	Villupuram-Vriddhachalam		Vriddhachalam-Ariyalur		Ariyalur-Lalgudi		Lalgudi-Golden Rock	
	Charted No. of paths each way	No. of trains run daily during busy period	Charted No. of paths each way	No. of trains run daily during busy period	Charted No. of paths each way	No. of trains run daily during busy period	Charted No. of paths each way	No. of trains run daily during busy period
31-3-64	16	10·7	17	11·7	19	14·7	23	18·7
31-3-65	16	11·3	17	11·3	19	14·3	23	18·3
31-3-66	16	13·3	19	13·3	21	16·3	23	20·3
31-3-67	16	14·0	19	14·0	21	17·0	23	21·0
31-3-68	16	13·1	19	13·1	21	16·1	23	20·0
31-3-69	16	14·0	19	14·0	21	17·0	23	21·0
31-3-70	16	15·0	19	15·0	21	18·0	23	22·0

6.51. It is seen from the above table that Although the charted No. of paths each way on Vriddhachalam-Ariyalur and Ariyalur-Lalgudi sections have increased from 17 to 19 and 19 to 21 respectively, the average number of trains run daily has not increased beyond the capacity available prior to the execution of new line capacity works.

6.52. From the facts placed before them the Committee cannot help feeling that from the very beginning the assessment made by the Railway Administration regarding additional traffic consequent on the setting up of Neyveli Lignite Project was anything but realistic. The estimate of the traffic furnished by the Neyveli Lignite Corporation (NLC) turned out to be highly inflated inasmuch as against 205 wagons per day anticipated to be moved, the actual traffic moved was a mere 30 to 35 wagons. On top of this, the Railways on their part instead of critically examining the position planned to develop rail capacity for 240 wagons per day, that is 35 wagons more than estimated by N.L.C. The Committee are not inclined to accept the Railway Board's statements that 'the prospects of traffic likely to be offered by the NLC for transport by rail were assessed after detailed discussion with concerned authorities at different levels' and 'the position was under constant watch by the Administration'. Had

this been done, the traffic forecast would not have gone so completely wrong. When the assessment was first made during 1963, the production in the NLC had not started and taken shape and hence the targets as given by the Project authorities should have been treated as tentative to be subjected to continuous review in the light of the actual trends of production and traffic offerings. The Committee regret that no reviews were made until 1968 when it was too late as almost all the works had been completed. Thus rail programme was not coordinated and corelated to the production levels reached in the NLC and the actual materialisation of traffic from year to year was not kept in view. Had adequate caution been exercised the wide gap between the actual traffic and that anticipated in December, 1964 and March, 1966 would have suggested to the Railway Administration the need for a reappraisal of the position. It does not behove a commercial organisation like the Railways merely to accept the statement/assessment of the other public undertaking without a critical scrutiny of the position. It was clearly the duty and responsibility of the Railways to have promptly reduced or revised and not relied upon the advice of the Deputy General Manager/T. & W. of NLC in January, 1965 to the effect that their production would be ready for movement from about June, 1965.

6.53. The Committee also note that a substantial portion of the output of NLC was moved out by road transport. This aspect, however, appears to have been completely lost sight of when the estimates of anticipated traffic were worked out by the Railway Board. The Committee would stress that in the process of assessment of traffic the impact of road transport on the Railway's share of goods traffic should be constantly kept in view. The Committee cannot resist the conclusion that the entire planning of the work was faulty and unrealistic.

6.54. The Project authorities are equally at fault inasmuch as they exaggerated their production estimates. By any standard, the figures given out by the Project authorities were too optimistic and far from being realistic and reasonable.

6.55. The general question as to how the proposals emanating from public undertakings/private bodies etc. for provision of new/additional facilities should be scrutinised by the Railways before agreeing to provide such facilities deserves special attention. The Committee are informed that the traffic estimates given by various departments/Ministries are being thoroughly scrutinised by the Railway Board in association with the Planning Commission. Besides

this the financial arrangement with the intending parties is now governed by Codal provisions. While the Committee note that attention is now being given to the proper scrutiny of the initial estimates of traffic, the Committee feel that it would be worthwhile if some procedure is evolved under which periodic assessment of traffic materialisation vis-a-vis the progress in the execution of the capacity works is carried out as a matter of regular practice. In this connection the Committee would like to make a reference to the observations contained in para 1.24 of their 22nd Report (Fourth Lok Sabha) which reads as under:

> "It is not business like for a commercial organisation like the Railways merely to accept the statements/assessments of other Ministries without critically examining the position themselves. Even when estimated traffic was not forthcoming, the Ministry of Railways did not promptly reduce or revise the programme merely because everybody was confident that they would produce the goods."

VII

OPERATION

Northern Railway—Avoidable expenditure on running of a dining car

Audit Paragraph

7.1. The Officer on Special Duty Catering (Railway Board), who was appointed to review the working of Departmental Catering on the Railway, recommended that on 1 Up and 2 Dn Howrah-Kalka Mails, dining car service which was running between Delhi and Howrah could be curtailed to run between Delhi and Mughalsarai. This suggestion was made in view of the fact that the train was running to the Howrah-Mughalsarai Section during night time and the patronage being poor, curtailment of the service would effect economy in expenditure. The passengers were also not likely to be inconvenienced as the static units at Dhanbad, Asansol and Burdwan could meet their requirements. In July, 1960 the Ministry of Railways (Railway Board) decided to implement this suggestion and issued instructions to the Eastern and Northern Railways.

7.2. The proposal was, however, not implemented for the time being as the Operating Branches of the Northern and Eastern Railways were not able to agree to provide a halt of 40 minutes at Mughalsarai needed for detaching/attaching the dining cars. The dieselisation of this train from 1st April, 1966 reduced the total running time by 2 hours and the Northern Railway revived the proposal for curtailment of the service with the Eastern Railway in May, 1966. The Railway Board also directed the Eastern and Northern Railways in November, 1966 to consider the withdrawal of the dining car service between Mughalsarai and Howrah. However, in view of some difficulties pointed out by the Eastern Railway, the service was continued. In October, 1967 Railway Board pointed out that the financial advantage of detaching the dining car at Mughalsarai far outweighed the difficulties and the dining car service between Mughalsarai and Howrah was finally withdrawn only from 1st April, 1968 by making arrangements for attaching/detaching it at Mughalsarai by increasing the halt by 15 minutes. Failure of the Railway Administration to implement the proposal at least from 1st April,

1966 by taking advantage of the 2 hours margin in running time gained on dieselisation resulted in the incurrence of avoidable expenditure of Rs. 62,000 on cost of staff and stores. In addition, extra haulage of dining car was also involved over 2644 Kms. for 24 months at seven trips a month, the cost of which would be Rs. 3.73 lakhs on the bat is of the dependent cost of haulage of a coaching vehicle *viz.* 84 paise per K.M. in 1966-67.

[Paragraph No. 34—Audit Report (Railways), 1970.]

7.3. The Committee enquired why were the instructions issued by the Railway Board in July, 1960 for limiting the dining car service to Delhi and Mughalsarai not implemented by the Northern and Eastern Railways. In a note, the Railway Board have stated:

"The instructions issued by the Railway Board in July, 1960 for limiting the dining car service between Delhi and Mughalsarai were not implemented for the following reasons:—

(i) The Eastern Railway represented about difficulties they apprehended in implementation of these orders. The difficulties in the main were the shunting at Mughalsarai, the proper marshalling of the dining cars at Mughalsarai and the slowing down of the trains as a result of extra time required at Mughalsarai and at Burdwan for serving food to the passengers from static units.

(ii) At that time the dining car on these trains was managed departmentally by the Eastern Railway and the Northern Railway had no departmental dining car service. Since the Railway Board ordered that the dining car service on 1 Up and 2 Dn between Delhi and Mughalsarai should be operated by the Northern Railway, it was represented by the Railway that until they had gained experience, it would be advisable to run the service through between Delhi and Howrah.

(iii) The Operating Departments of the Eastern and Northern Railways were unable to provide adequate halt at Mughalsarai for attaching and detaching the dining cars; the proposal to restrict the dining car service between Delhi and Mughalsarai had in the circumstances to be dropped.

(iv) The transference of the management of the dining cars from the Eastern Railway to the Northern Railway

took place on the 1st October, 1961 but the question of withdrawal of the service between Mughalsarai and Howrah was not raised by the Northern Railway or the Eastern Railway till the year 1966 when these trains were dieselised."

7.4. It has been stated in the audit para that as a result of the dieselisation of 1 Up|2 Dn Delhi-Howrah-Kalka Mail from 21-4-1966, running time was reduced by 2 hours. Asked why the dining car service was not curtailed to Delhi and Mughalsarai after dieselisation of the train, the Railway Board have replied:

"From 1-4-1966 the running time of 1 UP and 2DN Mail between Delhi and Howrah was reduced by 2 hours due to dieselisation. The proposal for the curtailment of the dining car service was revived by the Northern Railway with the Eastern Railway in May, 1966. The Railway Board also directed the two Railways in November, 1966 to consider the proposal. The Eastern Railway expressed the following difficutlies in implementing the proposal:—

(i) The dining cars marshalled almost in the middle of the train having vestibuled connections with the air-conditioning coach on the one side and first class coaches on the other. Thus, detaching and attaching *en route* was not desirable. Also providing a longer halt at Mughalsarai for this shunting would increase total time and cause public complaints.

(ii) Marshalling the dining car in rear or in front for facilitating shunting would be unpopular as the passengers find a central location more convenient.

(iii) Marshalling in front or rear could make these trains prohibited' *i.e.* no extra coach could be attached on special occasions.

(iv) No stabling facility for the dining cars at Mughalsarai.

The matter was considered by the Board and in the light of the difficulties pointed out by the Eastern Railway, it was decided in June, 1967 that the present arrangements might continue."

7.5. It has, however, been stated that 'the issue was taken up by the Board again in October, 1967 and the withdrawal of the dining car service between Mughalsarai and Howrah finally took place from 1st April, 1968."

7.6. To a question whether the difficulties of providing stabling facilities did not exist in April, 1968 when dining car service was withdrawn from between Mughalsarai and Howrah, the Railway Board have replied:

> "By April, 1968 the Eastern Railway had made suitable arrangements for stabling the dining car at Mughalsarai by reorganising the shunting and stabling programme".

7.7. The Committee regret to observe that the instructions issued by the Railway Board in July, 1960 were not given effect to till 1st April, 1968. It appears the economics of the proposal was never given a serious consideration. The Eastern and Northern Railway Administrations succeeded in thwarting the implementation every time the matter was raised by the Railway Board. The Committee fail to understand why suitable arrangements for stabling the dining car at Mughalsarai and necessary arrangements for detaching it at Mughalsarai could not be made earlier.

7.8. The Railway Board should ensure that all proposals aimed at curbing avoidable expenditure are implemented expeditiously.

Western Railway—Avoidable Expenditure due to Movement of Coal by Circuitous Route

Audit Paragraph

7.9. In pursuance of Railway Boards' directive issued in May, 1960 that early action should be taken to obtain the sanction of Additional Commissioner of Railway Safety for running BOX wagons on various sections, the Western Railway Administration obtained such sanction for the Bina-Kota section in May, 1963. By the middle of 1965, coal traffic in BOX wagons started moving from Central India Coal Fields to the industries at Kota, Lakheri and Sawai Madhopur. Although the shortest route was *via* Bina-Kota the coal traffic was moved by the longer route *via* Bhopal-Nagda, involving an excess lead of 299 kms. The freight was, however, charged by Bina-Kota route. It was only in February, 1967 that the routing of this traffic *via* Bina-Kota was commenced partly and the entire traffic was hauled by this route from January, 1968. From July, 1965 to December, 1967, 112 rakes for Kota, 36 for Lakheri and 11 for Sawai Madhopur were moved *via* longer route of Bhopal-Nagda at considerable additional cost.

7.10. It was noticed that during the period July to September, 1965, 41 loaded BOX wagons received from Northern Railway were returned to them alongwith empty wagons, and had to be re-booked to Western Railway. This involved avoidable haulage costing Rs. 57 thousand.

7.11. The Administration explained (December 1968) that the diversion of traffic was made as double heading of WD engines on the Kota-Bina section was allowed only from March, 1967 but no reasons were given as to why this could not be resorted to from an earlier date.

7.12. In regard to the returning of the loaded wagons it was stated that with the gaining of experience in handling BOX wagons, such cases would not arise in future.

[Paragraph No. 35—Audit Report (Railways), 1970.]

7.13. The Committee enquired why the longer route *via* Bhopal-Nagda which involved an excess lead of 299 kms. was being used upto 1967. A representative of the Board explained during evidence: "Essentially the difference in these two routes is something like a National Highway and a kutcha pathway. Bina-Kota was under-developed line with a large number of 75 lb. track with speed restrictions and even the sanction for BOX wagon was given only at a restricted speed of 40 Kms. In fact WG class was not permitted at that time. WG with lighter load was permitted. In case of other route it was a very highly developed route a fast route and a dieselised route. We could not run diesel or other heavy type engines on the Bina-Kota Section and the quantum of traffic that was coming through in BOX wagons for Bina-Kota Section was also not very heavy. Over a long time it was averaging 0.2 trains. We did not think it advisable to undertake any large number of works to convert the section suitable for not only BOX wagons at higher speed but also WGs and diesel. Secondly, diesel traction is more economical than the steam traction. We have worked out the figures. Diesel traction per train K.m. is 4.864 rupees whereas for steam traction it would be 6.342 rupees. For hauling the load of that size which the diesel can take we wanted two trains or double headed engines on steam traction on Bina-Kota Section."

7.14. The Committee were informed during evidence that the traffic was being carried by longer route until (a) the longer route could accommodate these additional trains and (b) the shorter route did not have more trains. To a question whether the shorter route was always under utilised, the witness replied: "It has always been

under utilised. But on the longer route, we had at the time the capacity to put this small quantum of 0.2 trains. But when the traffic on the longer route also went up, we found that it is better to develop the shorter route also. And accordingly, round about 1967, when we found that the traffic in longer route going up, and also at the same time, the demand for shorter route also went up, we found it necessary to develop this shorter route."

7.15. The Committee desired to know the increase in the traffic on the longer route namely Bhopal-Nagda from 1962 to 1967 when the shorter route was not being used. The following figures were given:

Trains each way against the capacity of 20 trains.	Percentage of utilisation.
14·6 as on 31-3-65	73%
15·4 as on 31-3-66	77%
16·3 as on 31-3-67	61·5%
17·5 as on 31-3-68	87·5%

7.16. It was also explained that "normally, when we reach a capacity of 80 per cent, we consider it saturated. And secondly, this 80 per cent is after taking away 0.2 trains by normal routes. And if we took all the services the demand goes beyond 80 per cent. Normally, we consider 80 per cent is saturation point."

7.17. During evidence, the Chairman, Railway Board stated as under:

> "What happened at that time was that they considered that this section was slow section, we did not have the controlling operation, they started operating the easier route, although it was a detour....As regards, economics, we will give you the figures after working them out. But the main consideration was easiness of operations; because, instead of running via Bina, we can run it straight to Bhopal etc. So, this was the main consideration.',

7.18. Referring to the comparative cost of hauleage by a diesel locomotives on a larger route and by a steam locomotive on a shorter route, the Committee pointed out that Audit had worked out the total loss of Rs. 16 lakhs. The representative of the Board stated

that there was a lapse as the position had not been properly explained to Audit. He added: "The Audit has taken the average cost of a train independently. While it is quite right to take the train average cost as a whole, when we compare two specific routes, we have to allocate the cost for each. We must allocate the power cost there. In this case it is not actually two even if one train is run on it. It has to be double-headed. Therefore, on the one hand, on the Bina-Kota route, we have to compare the cost of double-headed engine on this route, and we have to compare it with the cost of a single diesel. When the two are compared in that manner, actually, Sir, we save."

7.19. The Committee enquired why the Audit was not informed earlier about the correct position. The witness stated, 'Actually, we have not explained to the Audit properly. In this case, on the one hand we have got to set apart the expenses incurred in running those trains by diesel traction, which as everybody knows is much more economical than steam locomotives. When the costs are compared, we find the actual loss. I must plead guilty because we have not explained to the Audit properly."

7.20. Later on, in a written note furnished to the Committee, the Railway Board have stated:

"Audit have worked out the cost of haulage by Bina-Kota route as well as by Bina-Bhopal-Nagda route on the basis of goods trains kilometres. This basis does not take into consideration the following factors:—

(a) Heaviest type of engines allowed on Bina-Kota Section upto March, 1967, were single headed WD engines, with a maximum permissible load of 900 tonnes. Each BOX rake of 26 BOX wagons would have been required to be split into 2.3 train loads on Bina-Kota section and the goods train kilometres on Bina-Kota would therefore, have been 2.3 times more than on Bina-Bhopal-Nagda route.

Double headed WDs were allowed on the Section only after March, 1967, with a permissible tonnage of 1750 and even then each Box rake would have been required to be split and hauled by 1.2 trains on Bina-Kota Section with a corresponding increase in goods train kilometres.

(b) The cost of haulage by diesel traction which was used on Bina-Bhopal-Nagda route is very much less than cost

of haulage by steam traction used on Bina-Kota section as diesel engines were permitted to run on this section only from January, 1970. This aspect has not been taken into account in working out the cost of haulage by Audit.

(c) Lesser speeds and additional time taken for watering etc. would have led to increased transit time on Bina-Kota Section which was ont taken into account.

If the cost of haulage is worked out taking into consideration these factors, the relative economics of movement by the two routes would be as shown in Appendix VII.

It will be seen that for the 159 rakes with an average load of 26 BOX wagons each hauled by the longer route Bina-Bhopal-Nagda-Kota) durnig the period July, 1965 to December, 1967, the cost of haulage by the longer route works out to Rs. 18.84 lakhs as against Rs. 37.07 lakhs by the shorter route that is Kota-Bina route. In other words, haulage by a longer route resulted in savings of Rs. 18.23 lakhs on account of factors mentioned in para 1 above."

7.21. The Committee desired to know whether for adopting longer route permission of the Railway Board was required to be taken. The witness stated, "Yes, Sir. Now it is required." He further added. "After the Audit took up this question, we have issued the instructions....We were permitting till recently quite a bit of freedom on the part of the local railways to arrange diversion to run on longer routes."

7.22. The Committee enquired whether the Railway Board had issued any guiding principles for insisting on such instances being reported for Board's approval. In a note the Railway Board have stated:

"(a) Traffic is routed via a longer route when:—

(i) the shorter route is a branch line with lesser speeds;

(ii) while the shorter route is fully saturated, capacity is available on an alternative longer route and hence making further investment in increasing the capacity on saturated route is not considered economical.

(b) In such cases, routing by longer route as a long term measure for any reason, whatsoever, is done with Board's ap-

proval. The charging of freight has to be the shortest route so long as it is open for traffic.

(c) It is an universally accepted practice on railway systems all over the world that when the shortest route is saturated on has slow speeds, and at the same time capacity is available on an alternative longer, but reasonably direct route, the traffic is routed by the latter instead of investing on creating additional capacity on the shorter route."

7.23. The Committee enquired whether there were any other instances of deliberate circuitors routing of goods traffic as a regular measure. They were informed that there were thirteen such cases including the present one.

7.24. The Committee called for information regarding the financial implications of moving the traffic by the longer route in respect of each of these 13 copies. The Railway Board have furnished a statement (Appendix VIII) which gives detailed information about the cases where traffic is moved by a route other than the shortest route alongwith the reasons for such diversion. As regards the financial implications of moving the traffic by the longer route in respect of each of the 13 cases, the Railway Board have stated:

I. *Traffic from stations north of Itarsi (Punjab, Haryana, Delhi etc.) to South (Andhra Pradesh, Tamil Nadu, Kerala etc., and vice versa).*

The shortest route for this traffic is via Itarsi-Amla-Wardha-Balharshan-Vijayawada. A portion of this traffic is, however, diverted by two alternative longer routes viz. (a) via Itarsi-Bhusawal-Wardah and (b) via Itarsi-Bhusawal-Manmad-Dhond-Raichur. This diversion is only in respect of loaded traffic from North to South and in the other direction traffic moves by the shortest route.

(i) *Diversion via Itarsi-Bhusawal-Dhond-Wardha-Balharshan*— ....the additional cost of haulage of traffic by the longer route is Rs. 25.19 lakhs per annum. ....the additional expenditure on account of haulage by longer route compares favourably with the interest, depreciation and maintenance etc. on the capital investment required for development of facilities....to enable haulage of traffic by the shortest route. Nevertheless, the longer route by which the traffic is being presently diverted is also now saturated and in view of the increasing quantum of traffic offering from North South, particularly in foodgrains, movement by the shortest route would be economical.

Therefore provision of additional facilities....is contemplated now to enable movement.

(ii) *Diversion via—Itarsi-Bhusawal-Manmad-Dhond-Raichur*— The additional cost of haulage by the longer route is Rs. 5.69 lakhs per annum. Doubling works over a length of 178 Kms. of Balharshah-Wardha section at an estimated cost of Rs. 12.65 crores and on Wardah-Balharshah section at an estimated cost of Rs. 5.88 crores are in progress at proposal stage to enable all the traffic offering being carried by the direct route.

It will be seen that interest, depreciation etc. on the capital investment required for the carriage of traffic by the shorter route is very much more than the additional cost of haulage by the longer route viz. Rs. 5.69 lakhs. Nevertheless for reasons stated in para 13 above the provision of adequate capacity on the direct route is inescapable.

II. *Traffic from M.G. stations in Saurashtra to B.G. stations via Agra East Bank.*

...on account of the haulage costs on the metre gauge being higher than that on broad gauge, despite the longer lead involved, the haulage by longer route over broad gauge resulted in saving of Rs. 6.97 lakhs per annum

III. *Diversion of traffic from Kandla|Gandhidham stations in Delhi area and B.G. stations via Agra East Bank.*

It will be seen that in respect of traffic to B.G. destinations via Agra East Bank, the cost of haulage by the longer route is less than that by shorter route resulting in a saving of Rs. 3.38 lakhs per annum. In respect of traffic to Delhi area, however, the diversion by the longer route means an additional expenditure of Rs. 0.68 lakhs per annum. In other words, diversion of this traffic meant a net saving of Rs. 2.7 lakhs per annum. The traffic to Delhi could not, however, be moved over all M.G. due to saturated sections.

If the capital investment requirements for doubling of Palanpur-Abu Road sections are taken into consideration, the advantages accrued as a result of this diversion would become even more obvious.

IV. *Traffic from Porbandar-Junagarh area to destinations beyond Surrendranagar*

It will be seen that additional cost of haulage by longer route comes to Rs. 2.08 lakhs per annum. As there is no further scope for providing additional sectional capacity on the shorter route by providing more block stations, patch-doubling of 7.3 Km. section between Wankaner and Amarsar will be necessary if that traffic is to be carried by the shorter route. The estimated cost of this doubling would be about Rs. 36.5 lakhs but is not worth undertaking till the question of gauge conversion is settled.

It will, therefore, been seen that the diversion of this traffic by longer routes as at present is a better alternative to providing additional capacity on the shorter route at least till such time as the tional capacity on the shorter route at least till such time as the Gauge is finally decided.

V. *Traffic from stations North of Nidadavolu to stations South of Tsunduru on South Central Railway*

The additional annual cost of haulage on account of diversion by the longer route is Rs. 14.38 lakhs as against the estimated capital cost of Rs. 11.28 crores required for doubling of the main line section in Nidadavolu-Vijayawada and Tsunduru-Kistna Canal moved by the shortest route. As indicated in Para 7 of Appendix 'D', the Works are sanctioned and are likely to be completed by 1973 when the traffic will start moving by the shortest route. However, this diversion has not been found financially dis-advantageous considering the additional capacity cost required for increasing the line capacity to enable the tarffic being moved by the shortest route.

VI. *Traffic from stations beyond Tughlakabad to stations beyond Ambala*

The financial implications of diversion of traffic by these two longer routes are given in Appendices E1, E2, and E3. In so far as traffic being diverted by Khanalampura is concerned, it will be seen from Appendix F/1 that movement by longer route is cheaper mainly because of goods traffic on this section being fully dieselised. The saving on account of diversion by longer route is Rs. 5.20 lakhs per annum. The estimated cost of doubling of Delhi Ambala line and Delhi avoiding line which would be necessary if this traffic by is to be moved over the shortest route is Rs. 13.74 crores. It will, therefore, be seen that the diversion of this traffic to alternative longer route is financially a better proposition than development of capacity by the shorter route, in relation to the present quantum of traffic required to be moved.

VII. *Traffic from stations South-East of Bareilly to stations North-East of Moradabad.*

It will be seen that the additional cost of haulage of longer route is Rs. 17.16 lakhs per annum. As against this, the approximate capital cost of doubling of Bareilly-Moradabad section has been estimated at Rs. 7.28 crores.

As a result of this uni-flow system of traffic despite of very heavy frequency of passenger trains on the section, the average speed of diesel hauled through goods trains varied between 26 to 28 Kms. per hour on this single line section as compared to the figure of 23-24 Km. per hour during August, October and December 1970 for through diesel hauled goods trains on Northern Railway B.G. system as a whole.

It will, therefore, be seen that unless the quantum of traffic required to be moved increases very appreciably as compared to the present quantum of traffic, the present practice of uni-flow moving one direction traffic by longer route is financially a better proposition than the capital investment on doubling of Bareilly-Moradabad route.

VIII. *Traffic from stations from North West of Lucknow to stations South East of Varanasi and* vice versa.

The additional cost of haulage by the longer route is Rs. 15.83 lakhs per annum. As against this, the estimated cost of doubling of Zafrabad-Lucknow portion of Lucknow-Sultanpur-Varanasi section would be about Rs. 13.92 crores. It would, therefore, be seen that continuing this uni-flow system of traffic by diversion of Up traffic by a slightly longer route is financially a better proposition than additional investment for doubling of Lucknow-Sultanpur-Zafrabad section in order to carry goods traffic in both the directions over this route.

IX. *Traffic from M.G. stations South West of Kasganj to M.G. stations North West of Gonda on the N. E. Railway.*

It will be seen from the same that the additional cost of haulage by the longer route is Rs. 5.30 lakhs per annum, as against an anticipated capital investment of Rs. 28.8 lakhs required for providing additional capacity on the direct route.

However, the aspects about non-availability of land at Kanpur Anwarganj for providing additional facilities and undesirability of

making any capital investment on line capacity works on this metre gauge section till the matter about conversion of the Barabanki-Gorakhpur section to B.G. is finally decided, make it more prudent to continue with the diversion by the longer route at present.

X. *Traffic from stations on N.F. Railway to stations in Howrah area.*

Additional cost of haulage by longer route is, therefore, Rs. 29.89 lakhs.

The diversion by longer route will be discontinued after the Rail Bridge at Farakka has been completed.

Neverthless, it would be seen that the cost of diversion by this route does not compare unfavourably with the capital cost of Bridge over Farakka.

XI. *Coal traffic* via *New Katni to B.G stations on Western Railway* via *Bhopal.*

The shortest route for this traffic is *via* Katni-Bina-Bhopal. But this traffic was being diverted *via* New Katni-Itarsi-Bhopal involving an additional lead of 27 Km. This diversion has, however, been dis-continued with the completion of path doubling of New Katni-Bina-Bhopal section.

The financial implications of this diversion are not, therefore, given.

XII. *Traffic from stations in Bombay area to stations beyond Dhond.*

Financial implications in respect of this diversion will follow. It may, however, be pointed out that this diversion is unavoidable till New D.C. electric locomotives are brought into commission, to increase the load of trains over the Ghat. Two prototypes of new locomotives have already been put to service on trial.

It is not possible to charge the traffic diverted by the longer route *via* Dhond on the carried route as that will amount to discrimination. Moreover this diversion is not a regular feature and has to be resorted to when the clearance capacity over the ghat drops due to high ineffectives of the old over-aged D.C. locomotives in use now and also sudden spurt of essential traffic.

7.25. The Committee drew attention to the case referred to in the Audit para of return of 41 loaded wagons to the point of origin alongwith empty wagons and asked for the reasons for the same. The witness stated: "This was a very undesirable feature of operation and

we do not certainly like this. Even today we have some difficulty. Box wagons have a special kind of couplings and if for any reasons, one load gets mis-marshalled in between, stopping the entire trains, splitting the trains into two, finding a matching coupler—all this is a very difficult part of operation. Therefore, they had been allowing these wagons to go into the wrong directions and then getting these back.

If a train is going to Station A and a wagon belonging to Station B got into that, then instead of detaching it immediately, it is allowed to move in the wrong direction and then brought back with the appropriate train.

It is not a good practice at all and we discourage this."

7.26. From the information furnished to the Committee it is observed that the overall cost of haulage of goods traffic by diesel locomotives on the longer route namely Bina-Bhopal-Nagda-Kota is much less than what it would cost for haulage of the same traffic by the shorter Bina-Kota route by steam traction. In the absence of complete information on the subject, Audit had worked out that the diversion of traffic from shorter route resulted in a loss during the period July, 1965 to December, 1967. The Railway Board have worked out the comparative cost of haulage of goods traffic by the two routes and have come to the conclusion that there was actually a saving of Rs. 18.23 lakhs instead of the loss as worked out by the Audit. The Committee understand that calculations made by the Railway Board are under scrutiny by Audit and would like to be apprised of the final results.

7.27. The Committee regret that the Railway Board failed to furnish requisite information to Audit in this case well in time. The Committee need hardly emphasise that Railway Board should ensure that in future all the relevant information asked for by Audit or that which is considered necessary for being shown to the Audit is made available to them at the appropriate time. There should be no occasion for Audit to have to complain about such matters.

7.28. The Committee note that in 13 cases goods traffic is being hauled by routes other than the shortest routes because the latter were either not properly developed or are uneconomical in operation. From the information furnished to the Committee, it is seen that in some cases the cost of operating a longer route is more than what

it should be if this traffic is diverted to the shortest route. In such cases it has been pleaded that the additional cost involved in developing the shortest route would far outweigh the additional cost being incurred in the haulage of goods traffic by longer routes. The Committee desire that Railway Board should keep the position under constant review and watch the economy aspect.

7.29. The Committee feel that Railways have been using BOX wagons for quite some time and it should now be possible for them to devise measures to obviate the admittedly undesirable practice of return of loaded BOX wagons to the point of their origin. The Committee hope that the instance like the one referred to in the Audit para would not be allowed to be repeated.

VIII

EARNINGS

North Eastern Railway—Loss of revenue in P.O.L. traffic

Audit Paragraph

8.1. The Ministry of Railways (Railway Board) informed the Zonal Railways in December, 1962 that a notification would be issued in the Gazette shortly, reducing the air space to be left while loading certain liquid P.O.L. and other products in tank wagons and that as the recalibration of tank wagons on the basis of the revised air space might take some time, suitable instructions should be issued in the meanwhile to the staff concerned so that they might be in a position to levy freight charges on the revised carrying capacity as soon as the revised air space was given effect to. The Gazette notification giving effect to the reduced air space from 1st April, 1963 was issued by the Central Government in February, 1963. The Railway Administration issued rate circulars in May 1963 notifying the revised carrying capacities of the wagons for different fluids with effect from 1st April, 1963. It later transpired that the densities of these fluids adopted by the North Eastern Railway Administration for fixing the capacities of wagons were different from those specified in the I.R.C.A. Conference Rules. The carrying capacities for different fluids were, therefore, refixed and notified in May, 1965, to be effective from 1st June, 1965. Freight charges were, however, not levied at three stations on the revised basis till September, 1967, resulting in under charges amounting to Rs. 3.01 lakhs. Out of this a sum of Rs. 44 thousands only has been recovered.

8.2. The loss, if any, due to undercharges during the period from April, 1963 to May, 1965 consequent on wrong fixation of carrying capacities has not yet been assessed by the Railway Administration.

[Paragraph No. 36—Audit Report (Railways), 1970.]

8.3. The Audit para states that the North Eastern Railway issued rate circulars in May, 1963 notifying the revised carrying capacities of wagons for different fluids with effect from 1st April, 1963, but the densities of the fluid adopted for fixation of capacities were different from those specified in the I. R. C. A. Conference Rules.

Explaining the reasons for fixing the capacities of wagons different from those specified in the I. R. C. A. Conference Rules, the Railway Board stated in a written note, as follows:

> "In 1959, the Research, Design & Standard Organisation had made a determination of the densities of the various fluids which were notified in the I. R. C. A. Conference Rules Part III and adopted on all Railways. As certain questions were raised about the densities so fixed, the Central Railway were asked to go into the matter in conjunction with the Railway Inland Petroleum Movement Committee. The Central Railway sent out a circular to all Railways giving their conclusions about the densities of the various fluids. The North Eastern Railway adopted the densities circulated by the Central Railway in 1961 and the carrying capacities notified in the circular of May, 1963 were based on these densities. This was a mistake on the part of the Railway as the densities as notified in the I.R.C.A. Conference Rules Part III should have been followed until specific orders to the contrary were received from the Railway Board."

8.4. During the period from 1st April, 1963 when the first circular was issued, to 1st June, 1965 when the revised carrying capacities of wagons became effective, apparently the Railway Administration was charging on the basis of lower capacities. The Committee desired to know whether the undercharges during this period had been assessed and any recovery made. It has been stated by the Railway Board that the total amount of undercharges for the period from April, 1963 to May 1965 in respect of the three stations has been worked out to Rs. 2,23,020.66 and that the steps to realise this amount could be taken after the cases have been decided by the court.

8.5 The Audit para states that the carrying capacities for different fluids were refixed and notified in May, 1965 to be effective from 1st June, 1965 but at three stations the freight charges on the revised basis were not charged till September, 1967. The Committee asked for the reasons for the same. The Railway Board stated in reply:

> "Although the Railway Administaration correctly utilised the revised carrying capacities of the tank wagons, the stations concerned failed to act on these orders."

8.6. The Committee were also informed that "The North Eastern Railway has been asked to fix the responsibility of the staff for the lapses in this case".

8.7 To a question as to why these undercharges were not detected by the supervisory and accounts staff, the Railway Board replied:

> "Since in all these cases the invoice showed chargeable weight equal to carrying capacity the irregularity went undetected in Traffic Accounts Office. The outdoor supervisory staff, however, also failed to detect the undercharges."

8.8 The present position of the recovery of undercharges is stated to be as under:

> "Out of a total undercharges of Rs. 3,34,571.64 a sum of Rs. 32,306.50 has been recovered. These figures are based on recheck of the figures mentioned by the Audit. It has not been possible to realize the balance amount as the parties concerned obtained stay orders from the Court. The North Eastern Railway is taking action to get the stay orders vacated and realize the amount".

8.9 The Committee regret to note that there was a failure on the part of N.E. Railway in not following the orders of the I.R.C.A./ Railway Board properly. This needs to be looked into with a view to fix responsibility.

8.10 The Committee are informed that the undercharges during the period from April, 1963 to May, 1965 consequent upon wrong fixation of carrying capacities have been assessed for the three stations referred to in the para. The Committee would like that an assessment of the undercharges on other stations, if any, may also be made.

8.11 The Committee would also like to be informed of the action taken against the staff held responsible for the lapses which have resulted in financial loss to the Railways.

Western, Central, Eastern, Southern and South Central Railways— Undercharges in respect of consignments booked in BFU type well wagons

Audit Paragraph

8.12 In April, 1967 the Railway Board intimated all Railway

Administrations that freight charges in respect of consignments carried in BFU type well wagons (designed to carry oversized consignments like machinery for hydro electric projects, plants, equipments, etc.), should be levied on actual weight, subject to minimum weight for charge on the marked carrying capacity whichever was higher. These instructions were notified in the Goods Tariff for enforcement with effect from 15th July, 1967. The ruling of the Railway Board was also circulated by Western Railway under its Local Booking Advice No. 8 of 11th July, 1967.

8.13 A number of stations on Western Railway, however, recovered freight for consignments booked in BFU type well wagons, on the basis of actual weight only, without applying the condition of minimum weight for charge on the marked carrying capacity. This resulted in undercharges amounting to Rs. 10.08 lakhs in respect of consignments relating to local and foreign traffic booked from July, 1967 onwards. The Railway Administration had been able to recover only Rs. 2.38 lakhs. In addition, bills for Rs. 2.48 lakhs are stated to have been prepared against other Government Departments etc., from whom undercharges were due. Out of the remaining amount of Rs. 5.22 lakhs, the Administration stated that debits for Rs. 4.48 lakhs had been raised against the stations.

8.14 A test check conducted on other Railways also revealed similar undercharges amounting to Rs. 1.21 lakhs on Central Railways, Rs. 1.32 lakhs on Eastern Railway, Rs. 1.73 lakhs on Southern Railway and Rs. 1.33 lakhs on South Central Railway.

[Paragraph No. 37—Audit Report (Railways), 1970]

8.15 The Committee enquired whether extensive reviews were conducted by Railway Administration to assess the undercharges in respect of all bookings on all Railways and if so what were the undercharges detected and how much of these have been recovered. In a note, the Railway Board have stated:

"Yes, reviews were conducted by the Zonal Railway Administrations. The undercharges detected by them and the

latest position in regard to their clearance and the balance due are indicated below:

Railway responsible for recovery of undercharges	Amount under charges detected	Amount cleared	Balance Outstanding
	Rs.	Rs.	Rs.
Soutb Central	1,49,465	..	1,49,465
Central	81,800	32,233	49,567
Northern	88,270	15,299	72,971
Southern	53,484	18,732	34,752
Eastern	38,772	..	38,772

Railways are endeavouring to clear the balance outstandings and it is hoped that all the amounts will be cleared."

2.16 The latest position regarding recovery of the undercharges mentioned in the Audit para is stated to be as under:

Name of the Railway	Amount due for recovery	Amount recovered/ adjusted	Balance
	Rs.	Rs.	Rs.
Western	10,07,661	9,37,173	70,483
Central	1,21,343	42,421	78,922
Eastern . . .	1,65,225*	13,769	51,456
Southern	1,73,014	1,07,063	65,951
South Central	1,32,769	1,16,540	16,229

*Audit has raised only a sum of Rs. 1.32 lakhs. Further, on reconciling the figures of different Railways, it has been noticed that a sum of Rs. 60,127 has been included twice by the Audit, once against outward traffic of Central Railway and again against the inward traffic of Southern and Eastern Railways. The total sum raised by the Audit works out to Rs. 16,00,012 of which Rs. 60,127 is double accountal, Rs. 12,16,971 has been cleared and the balance to be recovered is Rs. 3,22,914.

According to Audit, however, there is no double accountal by them to the extent of Rs. 9,426 as the amount was included only in the Central Railway's figures and not in the Eastern Railway's figures.

8.17 The Committee are unhappy that even though the instructions regarding freight charges on consignments booked in BFU type well wagons were notified in the Goods Tariff, these were not followed strictly by several Railway Administrations thereby resulting in considerable undercharges.

8.18 The Committee hope that sustained efforts will be made to recover all outstanding undercharges. At the same time it should be ensured that such lapses do not recur.

North Eastern Railway—Loss of revenue due to delay in notification of the revised distance between Soron and Kasganj stations consequent on realignment of line

Audit Paragraph

8.19 The realignment of line between Soron and Kasganj stations on North Eastern Railway resulted in an increase of 4.06 Kilometres in the distance between these two stations. The newly constructed line was opened to traffic on 1st November, 1966. However, no action was taken by the Administration to notify revised distance for purposes of fares and freight, till 16th May, 1967. The printed copies of the Local Rate Advice and the Foreign Traffic Rate circular issued on that date, were actually supplied to stations still later, by the end of June, 1967. This resulted in short realisation of fares and freight to the extent of Rs. 51 thousand during the period November, 1966 to June, 1967.

[Paragraph No. 37—Audit Report (Railways), 1970.]

8.20 The Committee desired to know the reasons for the delay in the notification of the revised distance of the stations. The Railway Board have stated that 'the delay in the notification of the revised distance was on account of failure of the staff of the North Eastern Railway to take prompt action in the matter.'

8.21 Asked whether the responsibility of the staff had been fixed for the delay, the Railway Board have replied that 'this is being done in respect of the case under reference which is the only case which has come to notice so far.'

8.22 The Committee would like to be apprised of the action taken against the staff found responsible for delay in the notification of the revised distance between Soron and Kasganj stations consequent on realignment of the line.

Western Railway—Undercharges in recovery of freight

Audit Paragraph

8.23 A number of cases of undercharges in freight have been noticed on Western Railway, as indicated below:—

Dia Ammonium Phosphate—According to Goods Tariff, chemical manures are classified into two groups, Division A and Division B, for purposes of freight charges, the former being charged at a higher rate. (The class of freight applicable to Division A is 40-A and that applicable to Division B is 35-A for wagon loads). This classification is based on a recommendation made by the Commercial Committee in the year 1949, that manures priced at Rs. 500 per ton and above should be classified under Division A and those priced less, under Division B. Dia ammonium phosphate which is used as a chemical fertilizer, is not specifically classified in the Tariff, though an entry with a similar nomenclature, 'Diamophos' does appear under Division A. However, the stations had been charging the lower rate (Class 35-A), without ascertaining the exact classification for this commodity. It was only in December, 1968 that the Administration decided to charge dia ammonium phosphate at class 40-A, applicable to Chemical Manures—Division A, after ascertaining that its price was about Rs. 1,000 per tonne. A test check conducted in respect of four stations over different periods between October, 1967 and October, 1968, revealed undercharges in freight to the extent of Rs. 2.13.

Urea—In October, 1958 Railway Board issued instructions that Urea intended for manurial purposes and consigned in wagon loads by the Regional Directors of Food at ports or M|s Sindri Fertilizers and Chemicals should be charged at class 40-A applicable to Chemical Manures—Division A. However, consignments of this commodity booked from Veraval Docks were being charged at Class 35-A, applicable to Chemical Manures—Division B. The undercharges on this account work out to Rs. 1.25 lakhs for the period October, 1966 to April, 1968. It is stated that there is no traffic of this commodity from May, 1968, onwards.

Petroleum and other Hydro Carbon Oils.—It was seen from the records of Okhla Station that prior to April, 1969, freight charges in respect of petroleum and other hydro carbon oils booked in tank wagons, were not being recovered on the basis of notified carrying capacity of tank wagons used, as required under the rules. The undercharges for the period November, 1966 to March, 1969 have

been assessed at Rs. 93 thousand. The irregularity has been set right from April, 1969 onwards.

8.24. *BCX & BRH Type Wagons.*—The rules require the BCX and BRH types of wagons should be equated to 2½ times of a four wheeled wagon for the purpose of computing the minimum weight for charge. However, the records of five stations reviewed for different periods ranging between July, 1967 and December, 1968 showed that freight charges had not been computed correctly, resulting in undercharges to the extent of Rs. 38 thousand.

[Paragraph No. 39—Audit Report (Railway) 1970.]

8.25. The undercharges mentioned in the Audit para had been noticed as a result of test check. The Committee enquired whether exhaustive reviews were made to assess the undercharges in respect of all the bookings on all the railways and if so, what was the total amount of undercharges and how much of these have been recovered. The Railway Board stated in a written reply that an exhaustive review was being made and the assessment of undercharges, if any, will be made available when the review is complete.

8.26. Asked to state the present position of the recovery of the undercharges mentioned in the Audit para, the Railway Board furnished the following details:

"The present position in regard to the recovery of undercharges is given below:

	Amount under charges raised	Amount Cleared	Balance Outstanding	Remarks
	Rs.	Rs.	Rs.	
Dia Ammonium Phosphate	2,13,443	1,77,200	36,343	Bill for the balance amount has been submitted to the Pay & Accounts Officer, Ministry of Food & Agr. Bombay.
Urea . .	1,25,000	1,25,000	Nil	..
Petroleum and other Hydro-Carbon Oils	93,000	7,000	86,000	..
BCX & BRH Type Wagons . .	37,775	7,347	30,428	
	4,69,218	3,16,547	1,52,871	

8.27. In reply to another question as to the action taken to ensure that these undercharges do not recur in future, the Railway Board have stated:

> "Instrutions have been issued to all the Railways to tighten up their supervisory machinery to ensure that freight charges are levied correctly and lapses of the type pointed by Audit do not recur."

8.28. The Committee note that instructions have been issued to all the Railways to tighten up their supervisory machinery. They hope that the instructions would be strictly implemented.

8.29. The Committee note that Rs. 3,16,547 out of Rs. 4,69,218 raised on account of undercharges pointed out by audit have been recovered. They desire that vigorous efforts should be made to recover the balance outstanding.

8.30. The Committee would like that the exhaustive review stated to be in progress should be completed expeditiously and steps be taken to recover the undercharges if any, assessed after the review.

IX

OTHER TOPICS OF INTEREST

North Eastern Railway—Avoidable expenditure on the engagement of water treatment Khalasis.

Audit Paragraph

9.1. In February, 1961 the Railway Administration issued detailed instructions that water fed into the engine tenders at seven stations should be treated with a chemical compound to prevent caustic embrittlement in boilers. The chemical was to be issued to the drivers who were to add the required quantity thereof to the feed water at these watering stations. In April, 1964 the Railway Administration decided to carry out the chemical treatment on an extensive scale on account of serious damage to a large number of boilers by setting up a field organisation of water treatment khalasis. It was also decided to process quickly the fitment of automatic dosing gears to locomotives and to progressively withdraw the water treatment khalasis.

9.2. 100 posts of water treatment khalasis were created in March, 1965. This number was further augmented by 15 by 1st April, 1968. This field organisation was, however, wound up from April, 1969 on the basis of the decision taken in February, 1968 that the job of putting the chemical into the engine tenders at watering stations

could be performed by the regular traffic staff and that it was a colossal waste to appoint men only to ensure that the chemical was put into the tender tanks at watering stations. The avoidable expenditure incurred on the engagement of these khalasis amounted to Rs. 4.34 lakhs.

9.3. The Railway Administration stated (September, 1969) that caustic embrittlement of boilers in 1964 was so widespread that the problem had to be tackled on a war footing and with the large scale implementation of dosing at every watering station the position started improving, as the number of boilers affected by caustic embrittlement came down to one in 1968, from 17 in 1963. They further added that the khalasis were withdrawn after the position had 'stabilised', but the work had not been taken over by the local traffic staff completely and the chemical was not being added as regularly as required at most of the watering stations. Chemical treatment of water, to obviate caustic embrittlement is a preventive measure which should be implemented round the year and hence the question of stabilisation does not arise.

9.4. Further, there was delay in the fitment of dosing gears. By June, 1969, out of 642 locomotives under water treatment, only 262 had been fitted with automatic dosing gears. The delay in the procurement of dosing gears has been attributed by the Railway Administration to a detailed and proper study of the type of gear needed for satisfactory performance based on actual tests. The number of locomotive fitted with dosing gears on five other railways is, however, much higher. Moreover, chemical treatment of boiler feed water has been in vogue on all the railways but khalasis solely for putting chemicals into the engine tender were engaged on the North Eastern Railway only.

[Paragraph No. 41—Audit Report (Railways), 1970.]

9.5. The para states that although instructions had been issued in February, 1961 for the treatment of water fed into engine tenders at seven stations, the Railway Administration decided in April, 1964 to carry out the chemical treatment on an extensive scale. The Committee enquired why was adequate chemical treatment not given for Rs. 1961 onwards at all the watering stations round the year so as to obviate caustic embrittlement of large number of boilers in 1964. In a note the Railway Board have stated:

> "In 1961 the need for treatment of water in order to remove the hardness was felt and adequate steps were taken for

softening the water. Caustic embrittlement due to increasing use of tubewell water was noticed on the North Eastern Railway for the first time in 1963. The problem of caustic embrittlement of boilers could not be anticipated in 1961 and no steps could be taken to obviate such a complex defect before it was noticed and diagnosed. Remedial measures for removal of caustic embrittlement could be taken only after the causes of the defect were studied and analysed in consultation with the Research, Designs and Standards Organisation of the Indian Railways. As the problem was new and unprecedented, it was not possible to administer the remedy before the defect was noticed and analysed."

9.6. Asked why were the additional staff engaged on the North Eastern Railway when the work of adding chemicals into engine tenders was being done by the regular staff on other Railways, the Railway Board replied:

"In Indian Railways water treatment is done mainly for removal of hardness in boiler feed water so that hard scale formation does not occur on the boilers. This water treatment which consists of addition of chemicals into the engine tender is, by and large, entrusted to the regular staff on all the Railways at present, although some special staff for laboratory testing of the raw and treated water exists on all Railways. No other Railway, however, was confronted with the problems of caustic embrittlement of boilers in an epidemic form as was North Eastern Railway in 1963, 64 and 65. This problem came up due to more and more water supply being drawn from tubewells instead of from open stream for loco purposes. The problem of caustic embrittlement was in fact new to Indian Railways, and reached epidemic proportions in a very short time on the North Eastern Railway. There was, therefore, no necessity of engaging special staff for adding of chemicals on any other Railway. For removal of hardness, water is treated with soda ash|tannin solution. The case of caustic embrittlement is different as it is caused by concentration of alkali and soda ash being itself alkali, this treatment would lead to a greater tendency for boilers to develop caustic embrittlement. So the treatment for removal of hardness in water prevalent on other Railways could not be adopted on North Eastern

Railway, which was faced with a totally different situation. In order to remove the cause of caustic embrittlement by intensifying water treatment at certain stations where regular staff could not do the job effectively, North Eastern Railway was forced to create a special organisation of water treatment khalasis, under the loco Deptt. which remained under operation from March, 1965 to March, 1969. Before caustic embrittlement was noticed in an epedimic form, the work of adding chemicals to the engine tender for removing hardness of water was entrusted to the regular staff on North Eastern Railway also. After the problem of caustic embrittlement of boilers was brought completely under control both in its preventive and corrective aspects, this job was again entrusted to the regular staff with effect from 1-4-69—the date from which the water treatment organisation was wound up.

On North Eastern Railway the damage caused to the boilers by caustic embrittlement was so serious in 1963 and 1964 that it was beyond the capacity of the Railway Workshops to repair them and consequently a number of boilers had to be sent to CLW for repairs. In view of the cost involved and also consequent loss in traffic earnings and danger to safety, the Railway Administration decided that the causes of caustic embrittlement should be removed by proper water treatment and that apart from taking other remedial measures the question of procurement and fitting of automatic dosing gears should also be taken up separately. The problem continued in its seriousness in 1964. The Railway Administration, therefore, decided that the problem of caustic embrittlement should be tackled on a war footing as the potential for damage was so widespread and the effect on boilers was so excessive, that it would have been practically impossible for the Districts, with their existing set-up to exercise vigilance and ensure proper water treatment. It was also felt that the water treatment for removing caustic embrittlement was an additional effort beyond the capacity of the existing strength of staff in the Districts as it was absolutely necessary to ensure regularity and reliability of attention including the addition of chemicals to loco tenders at ever nocuous tubewell watering station. The problem could be tackled effectively by creating an *ad-hoc* organisation of water treatment khalasis as the

problem was unprecedented and had not been faced by any other Railway. The best way to ensure that treatment of water fed into the boilers was carried out reliably and correctly was to nominate special staff for adding the requisite quantities of chemicals into the loco tender. If it was left to some of the existing staff doing other work, the treatment was likely to be neglected and would not have been effective. The posts of water treatment khalasis were, therefore, created at those watering stations where it was absolutely unavoidable *i.e.*, where regular staff could not be expected to do the job efficiently and reliably. The Railway Administration was forced to create the special organisation of water treatment khalasis as the fitment of automatic dosing gears to locomotive tenders could not be taken up immediately after the problem of caustic embrittlement was noticed in view of the peculiar requirements of North Eastern Railway and the existing staff was inadequate to carry out the type of water treatment required for removal of caustic embrittlement."

9.7. Explaining the reasons why a field organisation of water treatment khalasis was set up and later withdrawn, the Railway Board have stated:

"Water treatment organisation consisting of Khslasis was created by the Railway Administration in order to save locomotive from the damage caused by caustic embrittlement, which was noticed in an epidemic for in 1964, and 1965 on the North Eastern Railway. The decision to wind up this organisation and to hand over the work of water treatment to the traffic staff could be taken only after position regarding caustic embrittlement had stabilised *i.e.* the problem of caustic embrittlement had been brought under control both in its preventive and corrective aspects. The traffic staff with their District system background, could not be entrusted with the work in the emergency when any failure on their part would have been disastrous. Obviously this was not possible before such stabilisation. After the incidence of caustic embrittlement was effectively checked the work of water treatment was handed over to regular staff as was the case on other Railways."

9.8. It has been stated in the Audit para that the field organisation was wound up from April, 1969 on the basis of decision taken in February, 1968 that the job could be performed by the regular

traffic staff. Asked as to the reasons for the delay of one year in implementing the decision, the Railway Board have stated:

> "Mechanical and Traffic Departments of North Eastern Railway held discussions regarding taking over the work of water treatment by the traffic staff early in 1968. In February, 1968 instructions were issued that the scheme of entrusting the work of water treatment to traffic staff should be tried in Samastipur District. During 1968 the scheme was tried out in Samastipur District and based on the experience gained there *i.e.* due to the continued reduction in the incidence of caustic embrittlement during the year 1968 at Samastipur, a decision was taken by the Railway Administration in January, 1969 that the scheme of entrusting the work of adding chemical at watering stations to traffic staff should be implemented at all the stations and the posts of water treatment khalasis surrendered. This scheme was initiated in January, 1969 and completed in March, 1969 as some time was taken in actual taking over of the work by traffic staff. The organisation could, therefore, be wound up on 1.4.1969 only. In February, 1968 decision was taken to try the scheme of using the traffic staff for adding chemicals to the feed water only in one district *viz.* Samastipur and about a year was taken in watching the results achieved in that District and in actual implementation of the Scheme at other stations. The fact that the incidence of caustic embrittlement had come down considerably was also taken into consideration when the final decision to wind up the water treatment organisation was taken in January, 1969. Since the effect of caustic embrittlement on boiler plates is not apparent except over a period of time, it was necessary to study the results of trials at Samastiput for one year before extending it elsewhere".

9.9. As regards the reasons for the delay in the procurement and fitment of dosing gears to the locomotives on the Railway the Railway Board have stated:

> "Although it was proposed in April, 1964 to fit dosing gears to the locomotives, the matter could not be taken up immediately in view of the peculiar circumstances obtaining on the North Eastern Railway. A reference was made by the North Eastern Railway to different Railways regarding the type of dosing gears used by them and their experience and also to the likely suppliers of this equipment.

The Railways were using dosing gears for softening hard water whereas the North Eastern Railway was seized with a different problem *viz.* removal of excessive alkalinity from the water. So the dosing gears used elsewhere could not be accepted straight away on the North Eastern Railway.

Thus the Railway was not sure of the amount of tennin solution that would be injected into the tenders from the dosing gear. The quality of injection is dependent upon the effectiveness of the dosing gear. It was also not known as to how much the quantity injected would vary with the level of tannin solution in the dosing gear and with the level of water in the tender. Trials made on dosing gears fitted on one of the locomotives on North Eastern Railway showed that it was not working satisfactorily. Attempts were made to manufacture 10 Nos. of dosing gears in Gorakhpur shops. By the end of 1965, the 10th dosing gears were ready and fitted to engines on Samastipur District. The nonavailability of these did not, however, affect the trials as in the meanwhile the Railway received certain dosing gears from Western Railway. The performance of dosing gears was kept under strict watch. The reports on their performance made from time to time by the Chemist and Metallurgist were not encouraging as the same indicated that the then existing design would not meet North Eastern Railway's requirements. The Chief Mechanical Engineer felt that before orders could be placed, the Railway must satisfy themselves that within practical limits the action of these gears met the Railway's requirements. After the Chemist and Metallurgist had given approval for the design on 29.8.66 after extensive trials, an order for 47 Nos. was placed on trade. This number was to cover one District only because the Railway did not feel quite sure that the dosing gears would be effective enough to do the work of removing alkalinity. While in service, the 10 dosing gears showed that galvanising of the tanks and ancillaries was a must and Gorakhpur Workshops did not have facilities for galvanising. As such no further orders were intended to be given to these Shops. 47 dosing gears were fitted by 1968 when their usefulness had been established. During the same year, a further order of 200 was placed, supply was received in 1969 and fitted to engines. A further order of 250 Nos. was placed by the Railway and the supply has

commenced and fitment of dosing gears to the remaining YP/YG class locomotives is in progress. It will thus be seen that there was no delay in procurement and fitment of dosing gears as the work could be undertaken only after detailed and proper study of the type of gears needed for satisfactory performance based on actual tests had been conducted, and after scrutiny of the offers for their manufacture had also been made. Any hasty steps in this direction without taking into consideration the peculiar conditions obtaining on North Eastern Railway, would have led to wastage and infructuous expenditure."

9.10. The position regarding fitment of dosing gears to locomotives on this Railway *vis-a-vis* other Railways as on 30.6.69 is stated to be as under:

"Railway	No. of locos fitted with dosing gears
Central	111
Eastern	298
Northern	488
North Eastern	262*
Southern	332
Southern Eastern	185
Souther Central	343
Northeast Frontier	324
Western	714

*No. of locomotives fitted with dosing gears as on 31-1-1971 was 303".

9.11. The Committee are not satisfied with the explanation given by the Railway Administration that caustic embrittlement of boilers in 1964 was so widespread that the problem had to be tackled on a war footing by setting up a field organisation of water treatment Khalasis and that the Khalasis were withdrawn after the position had stabilised. It is well-known that chemical treatment is a preventive measure to obviate caustic embrittlement and if this treatment had been introduced as a regular measure and applied at all the watering station round the year from 1961 itself by entrusting

the work to existing traffic staff and fitting dosing gears extensively, the crisis would not have developed in 1964.

9.12. Moreover, the treatment of water is a regular and continuous measure and each time the water is fed into the engine it has to be treated. Therefore the work which is now being handled by the traffic staff could have been done by the same staff from the very beginning. Obviously the separate field organisation of Khalasis was not created to repair the damaged boilers so that they could be withdrawn "after the position had stabilised". They were required to treat water fed into engines and that work still continues. If they can be dispensed with now, it should have been feasible to do without them in the beginning also.

Eastern Railway—Loss due to short recovery of brass borings

Audit Paragraph

9.13. Brass castings of rolling stock components manufactured in the workshops yield valuable borings during the process of machining. In the Kanchrapara workshop of the Eastern Railway, recovery of 90 per cent of the borings should have been possible by an efficient system of collection. 36,915 brass bearings and 176 axle boxes were machined during the periods April, 1966 to November, 1968 and April, 1967 to November, 1968 respectively which would have given rise to 196.5 M|Tons of borings (on the basis of the average weights of these components before and after machining) out of which 176.8 M|Tons should have been recovered. Actually, however, 30.1 M|Tons only was recovered. Short recovery of 146.7 M|Tons of borings resulted in a loss of Rs. 4.22 lakhs.

9.14. The loss on account of the short collections of borings was pointed out in July, 1968 where upon the Railway Administration appointed a Fact Finding Committee to enquire into the matter. The Committee observed that the short recovery was due to the lack of an efficient organisation and system of collection and suggested remedial measures for the future, which have been accepted by the Railway.

9.15. As similar losses are likely to happen in the workshops of other Railways also, fixation of standards for the quantity of borings that should be recovered in the machine shops, is called for.

[Paragraph No. 42—Audit Report (Railways), 1970.]

9.16. The Committee were informed that the machining of axle boxes started with the inception of Kanchrapara Workshops which

were repairing steam locos in the Loco Shops, Kanchrapara. Similarly the carriage and wagon brass bearings were being machined from the time the Carriage and Wagon Machine Shop was installed. According to Railway Board, the machining of carriage & Wagon brass bearings in the Loco Machine Shop was taken up in a big way from 1965 onwards, when there was a substantial increase in the load for machining carriage and wagon bearings, which could not be handled solely in the carriage & wagon machine shop.

9.17. The Committee called for the data regarding number of brass bearings and axle boxes machined in the shop year to year from commencement of the work; quantity of brass bearing expected at the rate of 90 per cent of yield; and actual quantity of borings recovered. The relevant data furnished by the Railway Board is reproduced below:

"The complete records of No. of bearings and axle boxes machined are not available for all the years. However, the figures as available from 1963-64 are given below:

Kanchrapara Loco Machine Shop

Year	No. of brass bearings machined	No. of axle boxes machined	Quantity on brass borings expected at the rate of 90% of the yield Kgs.	Actual quantity of brass borings recovered Kgs.
1963-64 . . .	N.A.	N.A.	N.A.	16419
1964-65 . . .	N.A.	N.A.	N.A.	10457
1965-66 . . .	5976	N.A.	20437	9917
1966-67 . . .	13885	N.A.	47486	7124
1967-68 . . .	16428	117	56183	8066
1968-69 . . .	7832	N.A.	26785	21991

N.A. 2 Not available

9.18. The Committee enquired about the arrangements that existed for collection, accountal & disposal of brass borings. In a written note, the Railway Board have stated:

"The machines are scattered in two bays and there was no separate enclosures for machining the brass materials. In the absence of any special collection squad, the brass borings in the Kanchrapara Loco Machine Shop used to

be collected and deposited by the individual machinists themselves at the end of the day to the chargeman of the Section. The Chargeman used to keep the borings in an adjoining strongroom before the same was finally deposited to the Foundry.

Thus machinery existed for safe deposit of the collected brass borings in the sealed godowns. Later, the borings used to be handed over to the Foundry as a regular measure.

The brass borings used to be left in the shop floor during the entire day. Besides, the machinists used to collect only the portion of the borings which were collected on the bed of the machines. There was no special squad exclusively set apart for the collection of all the borings, and as such some amount of borings spilled on the shop floor might have gone alongwith the sweepings and other ferrous borings in the shop.

Thus, the short accountal of borings might be attributed to non-collection of the entire borings as a regular measure. Mixing of a portion of non-ferrous borings with other ferrous borings also accounts for a certain amount of loss. It is also possible that the accumulated borings lying on the shop floor had also been robbed.

However, consequent upon the recommendations of the Fact Finding Committee, a special collection squad consisting of one Chargeman, one Mistry and three Khalasis has been employed for collection of the borings since March, 1969."

9.19. Asked to state the remedial measures recommended by the Fact Finding Committee and whether they have been implemented, the Railway Board stated as under:

"Remedial measures recommended by the Fact Finding Committee are indicated below:

(1) Some Supervisor in the Machine Shop should be specially held responsible for efficient collection of brass borings. The Collection performance should periodically be reviewed by the Manager concerned.

(2) The strength and organisation of the special squad for collection may be strengthened commensurate with principles of economy.

(3) Gazetted test checks at frequent intervals should be introduced to see that the system of collection is satisfactory. Shop records should be periodically inspected by the gazetted officers in this connection.

(4) Special stock verification should be organised, when called for, apart from the routine ones. This should be supplemented by departmental stock verification by the Mechanical Department.

(5) The Security Department should tighten its safety arrangements and checking arrangements at the gates to prevent pilferage, if any. A special procedure may be chalked out in this connection jointly by the ASO and the Works Manager.

These recommendations have been implemented since March, 69."

9.20. The Committee are informed that the present percentages of the yield of brass borings in Kanchrapara Loco Machine Shop are as follows:

Quarter ending Dec. '69	99.47
Quarter ending March' 70	97.83
Quarter ending June' 70	96.76

9.21. The Committee desired to know the position of recovery of brass borings on other Railways. The requisite information furnished by the Railway Board is given in the statement below:

"Recovery of brass borings—Position for quarter ending 31-3-1970.

Workshops	Weight of non-ferrous castings machined	Approximate Weight of non-ferrous borings that could be recovered	Weight actually collected	Actual percentage recovery
	K.G.	K.G.	K.G.	K.G.
1	2	3	4	5
W.R. Ajmer Loco Shops . .	82510	26895	24640	91·89
Ajmer C & W Shops . .	6107	1294	1290	99·70

1	2	3	4	5
N.E. Gorakhpur				
Brass Foundry shop .	22396	4072	4072	100·00
Wheel Shop . . .	96648	20000	20000	100·00
Brass Finishing shop . .	197875	82711	79150	95·70
Machine shop . .	94192	3020	2747	90·96
S.E. Kharagpur . . .	161300	31200	29600	91·63
S.C. Lallaguda . .	85981	37800	32803	86·79
Hubli . . .	204002	56782	55293	97·22
E.R. Kanchrapara (Loco) .	36399	2854	2792	97·83
Kanchrapara (C&W) .	41360	13478	11475	85·14
Liluah (A&W) . .	837	433	422	97·46

9.22. The Audit para states that according to the Fact Finding Committee the short recovery was due to lack of an efficient organisation and system of collection. Asked whether responsibility for the past losses and the failure to evolve a proper system of collection and accountal has been fixed, the Railway Board have stated:

"If responsibility for the past losses and failure to evolve a proper system of collection has at all to be fixed, this will evolve on the foreman of the shop concerned. He has, however, retired on 1-7-1968 and at present he has no link with the Railway. All his dues have been settled. However, the question of fixation of responsibility has to take into consideration the extenuating circumstances prevailing at that time as indicated below:

(i) The lay-out of the individual machines employed for the machining of the brass bearings was such that it was not practicable to recover 90 per cent of the non-ferrous borings. The condition of the shop floor was such that it was not readily adaptable for facilitating collection of all the borings. The floor of the machine shop was always greasy and most uneven, which militated against effective collection of borings.

(ii) There was no separate enclosure for the machines utilised for machining of the non-ferrous items and the chances of pilferage of some amount of borings could not ruled out.

(ii) Due to congestion of the machines as also due to machining of both ferrous and non-ferrous items on the same set of general purpose machines as and when required, the non-ferrous borings used to get mixed up with ferrous borings to a large extent, which precluded optimum recovery of the non-ferrous borings.

(iv) Absence of separate squad of Khalasis for collection of borings from different machines located all over the shop floor frequently as and when the machining work changed from non-ferrous to ferrous and *vice-versa* did not permit optimum quantity of borings being recovered."

9.23. The Committee are unhappy to note that due to lack of an efficient organisation and system of collection, the Eastern Railway had to suffer a loss of Rs. 4.22 lakhs on account of short recovery of brass borings. It is regrettable that no fool proof procedure was evolved by the authorities in workshop for collection and accountal of the valuable material since 1965 when the machining of brass bearings was taken up by the workshop. Only after the loss had been pointed out by Audit, a Fact Finding Committee was appointed to look into the matter.

9.24. The Committee feel that whereas it may not be possible to fix responsibility for the past losses sustained efforts may now be made to implement the recommendations of the Fact Finding Committee so that there is no scope for any future loss.

9.25. From the information furnished to the Committee it is seen that in certain workshops the percentage of recovery is as high as 100 per cent but in the case of C&W Kanchrapara and Lallaguda workshops the recovery percentage is much less. In order to ensure maximum collection, realistic standards of recovery of quantity of borings may be fixed in each workshop and adequate machinery should be evolved to have periodical checks and reviews at the appropriate level.

Central, Eastern, Northern, Southern and South Eastern Railways—Shortages and loss of cash from the Custody of Pay Clerks and at Stations

Audit Paragraph

9.26. During the period from February, 1967 to April, 1969, Cash entrusted to Pay Clerks for disbursement to Open Line staff was either lost or found short in four cases involving a total loss of Rs. 4.24 lakhs. Besides, an amount of Rs. 1.42 lakhs was also lost from the station master's room and travelling cash safes. The details of the cases are given below:

(a) *Northern Railways*—

(i) Cash of Rs. 1.09 lakhs lodged by a pay clerk in the sub-pay office at a Station on 17th February, 1967 was reported missing. It was reported that the outer lock of the sub-pay office was intact but the lock of the strong room and cash box had been tampered with. The theft occurred due to non-observance of rules by the pay clerk and the failure to lodge the cash with the Station Master or to inform the R.P.F./G.R.P. who were available at the station about the placement of the cash in the sub-pay office. The police closed the case in August, 1968 as untraced. The Pay Clerk has been permanently reduced in rank after a departmental enquiry.

(ii) On 29th April, 1967 a pay clerk deposited his cash box containing Rs. 56,000 in the strong room of the Pay Office which was under round the clock vigil of the R.P.F. staff. On the morning of 1st May, 1967 (30th April being Sunday) the pay clerk reported that the lock of the cash box was missing but the lock and seal of the iron cage was intact. The lock of the cash box was lying cut in one corner of the strong room and currency notes, coins and stamps worth Rs. 1,200 were also traced within the room.

The case was investigated by Government Railway Police and was closed with the remarks that the stolen property in this case being cash was unidentifiable. A Departmental enquiry committee which investigated the case found a number of procedural lapses, in regard to the security of cash deposited in the Pay Clerk's

strong room including certain defects in the construction of the strong room itself which had more than one access of entry for miscreants without the knowledge of the Railway Protection Force staff guarding it, and suggested various remedial measures for preventing recurrence of such incidents in future. The Administration stated in January, 1970 that the structural changes proposed by the Enquiry Committee have since been carried out. The Assistant Chief Pay Master and R.P.F. Rakshaks on duty have also been censured.

(b) *Eastern Railway*:—

(i) On 21st December, 1968 a junior Pay Clerk, proceeded on line with Rs. 1.90 lakhs escorted by two armed R.P.F. Rakshaks. On opening the cash box in the Pay Office at the destination station in the presence of two Pay Clerks and the armed escorts an amout of Rs. 1.66 lakhs was found missing from the Cash Box. The matter was reported to the Police who arrested the Pay Clerk alongwith another Pay Clerk and two cash peons. The result of Police investigation the departmental enquiry committee constituted to investigate the loss are still (December, 1969) awaited. The Government Railway Police have submitted charge sheets against the Pay Clerk and a cash peon which are pending in the court.

(ii) A detailed examination of the records of the open line Pay Clerk of a Sub-Pay Office and the workshop cashier at one of the workshop, during August-September, 1968 revealed shortages of cash totalling Rs. 0.94 lakh. Both the Pay Clerk and the workshop cashier as well as the former's cash peon were immediately placed under suspension. The three were also arrested by the Police and later on released on bail. The case is being investigated by the Government Railway Police and the Special Police Establishment, the result of which is still awaited (December, 1969). The departmental enquiry Committee which investigated the case had already submitted its report but the final consideration of the same is stated to be kept pending till the criminal case now proceeding in the court is disposed of.

(c) The amount of Rs. 1.42 lakhs lost from the Station Masters rooms and travelling cash safe etc. Comprised:—

(i) Loss in transit of Rs. 0.79 lakhs in four cases (one each on the Central, Southern, South Eastern and Northern Railways);

(ii) loss of Rs. 0.53 lakh from the custody of the Station Masters, Goods Supervisors and Boiler-shop in five cases (one each on the Central, Eastern, Northern, Southern and South Eastern Railways); and

(iii) cash of rupees ten thousand short received by a Pay clerk from a branch of the State Bank.

All the ten cases are still under investigation by Police and final action to regularise the loss and fixation of staff responsibility has yet to be taken (December, 1969).

[Paragraph No. 43—Audit Report (Railways), 1970.]

(a) *Northern Railway* (*i*) & (*ii*)

9.27. The Audit para states that the loss of Rs. 1.09 lakhs by thefts was facilitated by the pay clerk's failure to observe the prescribed rules *viz* not informing the Station Master and the R.P.F./G R.P. about the placement of cash in the strong room. Similarly the loss of Rs. 56,000 was facilitated by certain procedural lapses in regard to the security of cash deposited in the pay clerk's strong room including certain defects in the construction of the strong room itself.

9.28. The Committee enquired whether Railways had examined the scope for minimising the holding and transport of liquid cash, which gives occasion for such sizeable recurring losses of ash. In a note, the Railway Board have stated:

"The holding of cash by Station staff is not permitted as per extant rules. The entire collection of the day of station represented by coins, currency notes, military warrants etc. it required to be sent daily, as no part thereof could be retained without prior approval of the Chief Commercial Superintendent. Again as a general rule payments from the cash office into the treasury of station remittances and other miscellaneous receipts should be made daily except in certain circumstances *e.g.* on account of holidays, absenteeism of the shroffing staff etc. As regards minimising the transport of liquid cash in order to reduce the occurrence of such losses of cash, the matter is already under consideration of the Railway Board to remit the

station earnings directly into the local banks|treasuries. The Ministry of Railways is also negotiating with the Ministry of Finance in order to deposit Railway cash in to the nationalised banks and to withdraw cash from there so that a greater degree of localization of cash transactions can be achieved thus minimizing transportation of cash over distances."

9.29. In a further not, the Railway Board have added:

"The matter regarding reviewing the present system of transporting liquid Cash in travelling cash safes came up under consideration of the Railway Board sometime in 1968. Since the matter had to be finalised in consultation with the Ministry of Finance and the Reserve Bank of India, correspondence was entered into with the aforesaid offices. An officer of the Railway Board's office also discussed the question with the concerned Director in the Ministry. The latter indicated that before Nationalised Banks could be instructed to undertake the Railway transactions locally, a considerable amount of training, particularly for dealing with the Government transactions had to be given to the staff of those banks. The matter is being vigorously chased with the Ministry of Finance at Secretary's level and it is hoped that this will be finalised soon."

9.30. The Committee desire that the negotiations with the Ministry of Finance and Reserve Bank should be expeditiously pursued and a sound procedure may be evolved to minimise the holding and transportation of liquid cash.

(b) *Eastern Railway* (i)

9.31. Asked about the present position of the case, the Railway Board have stated:

"S|Shri Dass—Jr. Pay Clerk, Gopal Singh—offg. Sr. Pay Clerk and Munshi Singh & Indradaman Singh—the cash peons were arrested by the police but later on Sarvashree Gopal Singh and Munshi Singh were released on bail on having been declared innocent by the police and were allowed to resume their duties. Sarvashri Dass and Indradaman Singh were, however, challenged in the court of law at Sasaram and the matter is still subjudice."

9.32. In a further note, the Railway Board have stated:

"Departmental Enquiry Committee proceedings have been completed but no findings have been recorded pending decision of the Court. On the basis of information so far available, the case was treated as one of shortage of cash from the custody of the pay-clerk (Shri P. K. Das), who had correctly received the cash from the Divisional cash Office at Dhanbad. Whether any procedural lapses existed can be determined after the availability of the report of the Departmental Enquiry Committee. Hence the question of taking remedial measures has not arisen up to this stage."

9.33. (ii) Regarding the present position of the case, the Railway Board have stated:

"The three accused persons *viz.* S|Shri D. P. Mukherjee, Open Line Pay Clerk, D. C. Mitra, Workshop Cashier and Gupteshwar Ojha—Cash peon were, at first, arrested by the Police but were, subsequently granted bail by the court of law. The Police investigation is still in progress and revised charge-sheets against them are under preparation by the police."

9.34. The Committee understand from Audit that the misappropriation of cash amounting to Rs. 94 thousand was due to faulty system under which the open line cashier was allowed to draw cash from two separate accounting units *viz.* workshop and division. In order to avoid transmission of heavy cash from Howrah to Jamalpur the open line pay clerk was made to obtain cash from the workshop cashier in whose favour cheques were issued. The Open line pay ckerk was also being given liquid cash by Divisional Cashier, Hawrah and the Workshop Cashier, Jamalpur wherever there was delay in the encashment of cheques by the latter. Neither the D.A.O., Howrah nor the W.A.O., Jamalpur was aware that open line cashier was obtaining liquid cash from two sources.

9.35. The Committee desired to know as to who was responsible for introducing this scheme which involved deviation from the normal procedure of handling cash and whether it was done with the prior approval of the competent authority. In a note, the Railway Board have stated:

"There is no evidence to show that the scheme was defective. The actual practice had been that the Divisional Cashier,

Howrah placed requisition for cheques payable to Workshop Cashier, Jamalpur so as to place the Open Line Pay Clerk at Jamalpur with funds. The cheques passed from the office of the Divisional Accounts Officer, Howrah through the Divisional Cashier alongwith the forwarding advices to the Pay Clerk Jamalpur whose responsibility was to ensure that the cheque was handed over to the Workshop Cashier by 9.30 hrs positively for necessary encashment from the State Bank of India, Monghyr. After encashment of the cheque, the workshop Cashier was to make over the cash to the Open Line Pay Clerk at Jamalpur station under clear receipt. Although the case is still sub-judice in the court of law, it has been ascertained that non-maintenance of proper documents for making over and taking over of cash between the Workshop Cashier, Jamalpur and the Open Line Pay Clerk, Jamalpur was one of the defects in the practice and not in the procedure. The actual date from which this practice came into existence and whether it had the approval of the competent authority could not be determined from the records available on the Railway. It is, however, obvious that the procedure referred to had the advantage of avoiding unnecessary transport of heavy cash from Howrah to Jamalpur. While the Workshop Cashier at Jamalpur had all the facilities of a cash van & adequate complement of armed guards etc. to obtain cash from the State Bank of India, Monghyr, the Open Line Pay Clerk on the contrary did not have even a sub-pay office at Jamalpur.

9.36. Asked whether this scheme has since been discontinued, the Railway Board replied:

"Immediately after consideration of the recommendations of the Enquiry Committee dated 10-9-68 by the Eastern Railway Administration, the standard system of sending liquid cash to the Open Line Pay Clerk at Jamalpur under control of the Divisional Cashier, Howrah by train with the usual armed guards was reverted to."

9.37. The Committee desire that the progress of the cases stated to be sub-judice should be watched and adequated action should be taken after the courts have given their verdict.

9.38. (c) All the ten cases referred to in the para were stated to be under investigation. In a note, the Railway Board have indicated the present position of each case as under:

"(i) Short receipt of Rs. 23,500 in cash from Kanpur Station detected in Jhansi Cash Office on 29th Feb. 1968.

Initially, the police to whom the matter was reported for investigation returned the case as "Crime remains untraced". A Senior Scale Officers' Enquiry Committee, however, established that one guard and 3 ASMs of Jhansi who had not observed the prescribed procedure in regard to collection, counting, safe custody and remittance of station earning were responsible for the loss. Disciplinary action was initiated against them but the same could not be proceeded with due to emergence of a new fact that both the missing cash-bags No. 2 & 22 were found in re-circulation in April '69. Therefore a fresh reference was made to police and the case is under investigation *de novo* by the Supdt. G.R.P.

(ii) Non-receipt of cash bag No. 9 containing Rs. 6,000 due under C.R. Note No. 688497 dated 20-8-69 from Bangalore City.

The case is still under police investigation though the departmental enquiry has been completed and action on their recommendations is in progress.

(iii) Missing of Rs. 25,841 from Cash Bag No. 55 remitted under Banpani station *C.R. Note No.* 32, 390 *dated* 19-4-67.

The Police case against the then Asstt. Station Master and other is still sub-judice.

(iv) Loss of cash from the cash safe No. 211 on Lucknow Division (Rs. 23,161).

The Guard-in-charge of the train was held responsible and the police case against him is still sub-judice in the court of law. The procedural lapses have been set right.

(v) Theft of Rs. 10,755 from Ranchi *Goods shed on 26th April*, 1969.

The matter is still under Police investigation.

(iv) *Dacoity in Boiler Shop (Structural), Jamalpur on* 3-3-69 *(Rs.* 10,147.68).

The Police investigation is still in progress. Action against the defaulting employees of the workshop & the Accounts Office has since been completed.

(vii) *Loss of cash from Multai Station Cash Safe on 16th Feb. 68 (Rs. 10,552.21).*

The departmental enquiry committee held both the station master and the assistant station master responsible for the loss due to their carelessness and neglect of duty. On this A.D.A.R. enquiry was initiated and simultaneously the recovery of the loss was commenced from their pay but the ASM filed a writ petition in the court of Nagpur. Accordingly, the recoveries have been pended. On finalisation of D.A.R. case, the decision to impose a penalty for withholding of increment (non-recurring) for 2 years and 1 year respectively was taken in addition to recoveries of 50 per cent of loss from each of them. As ASM had put an appeal and also owing to some procedural lapses in conducting the disciplinary proceedings the case has been ordered for a *de novo* enquiry under DAR which is in progress.

(viii) *Loss or Coaching Cash of Rs. 10,510 from Bareilly Station.*

Shri Safdar Hussain, the Chief Booking Clerk, was held personally responsible for the loss by the Departmental Enquiry Committee. Necessary action under DAR is being taken after a charge-sheet for major penalty was served on him.

(ix) Loss of cash from the office of Station Master, Ernakulam Jn. on 5*th May* '68 (*Rs.* 11,500)

The Station Master from whose custody the cash-bag was lost, was held responsible for carelessness & not properly ensuring safety of Railway Cash while he left his office to attend operating duties on the train. The employee was transferred away from Ernakulam Jn. In addition, a sum of Rs. 240 p.m. was being recovered from his salary since 10-8-68 but he filed a writ in the High Court of Kerala the outcome of which is still awaited. At the time of loss Shri Sathan—a watercarrier—was also present alongwith the station master. As such he was also held partially respon-branch of *State Bank of India, Jabalpur.*

(x) Cash of Rs. 10,000 short received by Pay Clerk from a branch of *State Bank of India, Jabalpur.*

As neither the Bank Cashier nor the Bank agent was prepared

to own the liability for the loss, the case was referred to the Police who also closed the case as 'Untraced'. The matter was then referred to the Joint Secretary and Legal Adviser, Ministry of Law, Bombay for his expert advice who opined that in the circumstances of the case it would not be advisable to embark on litigation with the Bank. The matter was again discussed with the Secretary & Treasurer of the State Bank at Bombay but he too declined to accept/share the loss. In the circumstances, the amount had to be written off."

9.39. Asked whether the Railway Board have enquired into the reasons for the delay in finalisation of these cases, it was stated in reply:

"The ten cases were enquired into by the Departmental Committees but since all the cases merited investigation by the Police, these were referred to them from their probe. It is seen that in one case the departmental enquiry has been completed and is being proceeded by the Railway administration, only one case is still under departmental enquiry four are being investigated by the police and 3 including one where a departmental enquiry is also in process are pending in the Courts of law; the tenth case regarding shortage of Rs. 10,000 occured during the course of encashment of Railway cheque at the counter of State Bank of India, Jabalpur, has since been closed."

9.40. The Committee desire that efforts should be made to ensure that all such cases of loss of cash from the travelling cash safes and station staff, short receipt from the State Bank etc. are finalised quickly.

Losses

Audit Paragraph

9.41. Cases of losses adjusted in the Accounts for the year are mentioned in "Annexure 'H'" to the "Appropriation Accounts of Railways in India-Part II—Detailed Accounts". The total amount of

losses adjusted during the year under report was Rs. 3.43 crores which was the highest during the last nine years as shown below:

	No. of items (In thousands)	Amount (In lakhs of rupees)
1960-61	156	64·21
1961-62	111	96·04
1962-63	77	159·73
1963-64	104	158·65
1964-65	132	244·12
1965-66	140	184·26
1966-67 . .	86	228·02
1967-68	121	158·78
1968-69	205	342·81

9.42. The details of losses adjusted during the last four years ended 1968-69 under broad categories are given below:

Reasons for losses	Amount (in lakhs of rupees)			
	1965-66	1966-67	1967-68	1968-69
(1) Damages to Railway Properties caused by accidents . .	64	65	90	113
(2) Thefts (including theft of fittings in Rolling stock)	50	53	34	53
(3) Losses caused by natural calamities such as floods, storms, etc. and fire.	18	17	18	117
(4) Loss arising from civil disturbances	36	13	2	13
(5) Inefficient balances suspences heads and irrecoverable overpayments to staff, contractors etc. written offi.	3	8	3	7
(6) Other losses	13	72	12	40
TOTAL	184	228	159	343

9.43. The steady increase in the total amount of loss on account

of thefts was commented upon in para 8 of the Audit Report, Railways, 1968. Although the position in this regard showed some improvement during 1967-68, it had shown a phenomenal increase during the year under report. As in the previous years, the bulk of the losses were adjusted on five Railways as shown below:

Railways	1965-66	1966-67	1867-68	1968-69
1. Central	11·2	9·8	1·7	27·5
2. Eastern	14·1	11·9	13·0	11·7
3. Northern	7·8	4·5	9·7	7·2
4. Southern	13·8	17·1	1·0	1·5
5. South Central	..	6·3	5·7	3·5
TOTAL	46·9	49·6	31·1	51·4

9.44. The procedure for determination of the losses relating to theft of fittings of rolling stock and other deficiencies and their exhibition in "*Annexure 'H'* to the Appropriation Accounts" which was laid down in November, 1965 has not been implemented on the Central, North Eastern and South Eastern Railways, while it has been only partly implemented on the Western and North-east Frontier Railways.

9.45. Out of the 21 major incidents of losses due to fire involving Rs. 13.68 lakhs included in *Annexure 'H'* for 1968-69 seven cases totalling Rs. 4.85 lakhs related to the Central Railway. In the previous year also the bulk of the losses due to fire occurred on the Central Railway (4 for Rs. 2.80 lakhs out of a total of 6 for Rs. 4.26 lakhs.)

[Paragraph No. 44—Audit Report (Railways), 1970].

9.46. As the accident claim a substantial portion of the total loss, the Committee enquired whether the recommendations of the Railway accidents Inquiry Committee to avert accidents had been implemented by the Ministry of Railways. In a note, the Railway Board have stated:

> "The Railway Accidents Inquiry Committee—1968 submitted their Report in two parts—the first part in November, 1968 and the second and final in August, 1969 respectively.
>
> Part I of the Report, which contained 139 observations and 90 recommendations, has been laid on the Table of both Houses of Parliament in December, 1968. Later, the views of the Ministry of Railways on the various observations and recommendations made by the Committee in this part were circulated along with the Railway Budget documents in February, 1969. All the 90 recommendations have been

accepted and action on these along the lines of the views has already been initiated. 53 recommendations, including some which are of continuous natue, have already been implemented.

The second and final part of the Report, which covers many facets of railway working, was laid on the Table of both Houses of Parliament in August, 1969. Later the views of the Government on the various observations and recommendations made by the Committee in this part of the Report were laid on the Table of both Houses of Parliament in February, 1970. The total number of observations and recommendations contained in this part is 500. Of these, 46 are essentially in the nature of observations and the remaining 454 are in the nature of recommendations. Of the 454 recommendations, 273 have been accepted and another 28 partially accepted. As against this 58 recommendations have not been accepted. The remaining 95 recommendations are such as involve detailed examination of their implication and in many cases require consultation with other Ministries and departments. The examination is being accordingly processed to reach decisions on these expeditiously.

Action as necessary on the accepted observations and recommendations along the lines of the views of these has already been initiated. 90 recommendations have so far been implemented and progress of implementation on the remaining is being watched."

9.47. To a question whether the incidence of accidents has recorded a decrease during 1969-70, the Railway Board replied:

"The comparative position in regard to the number of train accidents in the categories of collisions, derailments, trains running into road traffic at level crossings and fires in trains that occurred on the Indian Government Railways during the last 6 years is given in the following table:

S.No.	Category	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70
1.	Collisions	91	75	68	66	49	54
2.	Derailments	1054	1025	916	941	758	822
3.	Level Crossing accidents	154	127	107	115	145	135
4.	Fires in trains	31	43	50	43	48	47
	Total :—	1330	1270	1141	1167	1000	1058

The position of consequential train accidents during the first

8 months of the current year *i.e.* April, 1970 to November, 1970 as compared with the corresponding period of the last year is given below:

	April, 69 to November, 69	April, 70 to November, 70
Collisions	31	39
Derailments	545	472
Trains running into road traffic at level crossings	78	70
Fire in Trains	37	8
Total	691	589

It will be seen that the position of train accidents has improved during the current year in all the categories except collisions where it registered a set back—the number having increased from 31 during April to November, 1969 to 39 during the same period of the current year. The increase in the number of collisions as in the previous year has been due to increase in the number of cases due to failure of drivers. Suitable remedial measures by way of intensive supervision monitoring and safety motivation through personal contacts, provision of driver's vigilance montrol device on an extensive scale, improvement in the condition of running rooms etc., hae been undertaken or programmed. The position is being watched closely and it is hoped that with the preventive measures having been further intensified the position would soon improve in respect of collisions also."

Losses due to theft

9.48. The Committee desired to know whether the reasons for the large incidence of thefts on Railways despite of RPF staff have been enquired into and if so the results thereof. The Railway Board stated in a note, as under:

"The Audit Para brings out that the loss on account of thefts including loss of fittings in rolling stocks attributed to thefts showed phenomenal increase during 1968-69 and that the bulk of thefts occurred on five Railways, *viz.* Central (Rs. 27.5 lakhs), Eastern (Rs. 11.7 lakhs) Northern (Rs. 7.2 lakhs), South Central (Rs. 3.5 lakhs) and Southern (Rs. 1.5 lakhs). The comparative position of losses on account of thefts including loss of fittings in rolling

stock attributed to thefts during 1967-68 as compared to 1968-69 are given below in juxtra-position:

Railways	(Figures in lakhs) 1967-68	1968-69
Central	1·69	27·47
Eastern	13·04	11·69
Northern	9·71	7·23
Southern	1·01	1·50
South Central	5·71	3·54

It would appear from the figures that phenomenal increase has been reported from Central Railway in 1968-69 as compared to 1967-68 (from Rs. 1.69 to Rs. 27.47 lakhs). On the Eastern, Northern and South Central Railways, the position in respect of losses on account of thefts improved during 1968-69 as compared to 1967-68. There was a nominal increase on Southern Railway of about .5 lakhs which is a small percentage of the overall increase.

An analysis of figures of the Central Railway would show that the losses as reported during 1968-69 were not actually the losses during that year alone and they do not represent the actual loss due to thefts during that particular year but include the amount written off during the year, irrespective of year of occurrence. The Central Railway have reported that in the statement showing items of thefts included in *Annexure H* of appropriation account 1968-69, the figure Rs. 27.47 lakhs includes the loss of Rs. 10.2 lakhs booked in the year 1966-67 and loss of Rs. 10.1 lakhs booked in 1967-68 which were written off during 1968-69. The losses booked during 1966-67 (Rs. 2,08,510) and 1965-66 (Rs. 1,02,198) were also written off during 1968-69. Therefore, the figures during the year 1968-69 are not representative of the actual state of affairs regarding losses due to thefts during the year."

9.49. As regards the strengthening of RPF, the Railway Board stated:

"It would not, however, be correct to say that there has been strengthening of the R.P.F. staff. The total strength of the R.P.F. on 31.3.1968 was 56,341 and it was 55,701 on 31.3.1969. Although the R.P.F. staff sanctioned is inadequate fo checking thefts of fittings in rolling stock, those who are engaged in other duties, are sometimes deployed

to keep a watch and patrol the affected areas, keep a check on the incidence of such thefts by a system on joint checking. The Intelligence staff of these railways are also engaged in finding out the criminals responsible for these thefts and organise raids at the godowns of the receivers of the stolen goods. With the limited resources at the disposal of the RPF, the situation has improved during 1968-69 as compared to 1967-68 on all the railways except Central and Southern Railways. The Southern Railway, however, reported slight increase but the bulk of this increase is not so heavy.

The effectiveness of the RPF staff particularly on the Central, Eastern and Northern Railways has been subjected to a detailed review from time to time and instructions have been issued to plug loopholes wherever found for checking pilferages and thefts."

9.50. The Public Accounts Committee had, in their 32nd Report (Third Lok Sabha) recommended that losses on a count of thefts of fittings in Rolling Stock should be assessed separately. In compliance with the above recommendation of the Committee, the Ministry of Railways issued detailed instructions in November, 1965, as to the procedure to be adopted for determining the losses due to theft of fittings and as to the method of assessment of their value. The Ministry of Railways also instructed that the losses should be investigated with a view to taking adequate remedial action.

9.51. The non-implementation of the above instructions on six Railways was commented upon in para 8 of the Audit Report, 1968. The Public Accounts Committee 1968-69 desired in para 7.22 of their 60th Report (Fourth Lok Sabha) that their recommendations should be implemented quickly. In reporting Action Taken Note thereon (*vide* page 113-114 of the 94th Report of PAC (Fourth Lok Sabha) the Ministry of Railways explained that the instructions of November, 1965 have been reiterated and also referred to their instructions of 16.6.1969 issued in connection with the Appropriation Accounts (1968-69) advising the Zonal Railways to exhibit losses on account of thefts and fittings correctly.

9.52. The Committee pointed out that even after a lapse of four years the procedure laid down by the Board in November, 1965 for the determination of the losses relating to thefts and other deficiencies in fittings of rolling stock and its exhibition in *Annexure H* to the Appropriation Accounts had not been implemented on the Central, North Eastern and South Eastern Railways while it was only

partly implemented on the Northern, Western and North East Frontier Railways. Asked as to the real difficulties in implementating the Board's instructions issued in November, 1965, the Railway Board have stated:

> "There were some practical difficulties in implementing the Board's instructions issued in November, 1965 but these difficulties have been sorted out as far as possible. In spite of this, discrepancies in the statements do arise sometimes but the same are reconciled later on by discussions and correspondence between the concerned branches."

The Railway Board also added:

> "It is also the responsibility of the Ministry that the instructions are duly and strictly complied with by all the Zonal Railway Administrations. For this purpose a review is made from time to time in order to ensure that the instructions are implemented and instructions are modified if there is any practical difficulty in implementing those instructions strictly."

Losses due to fire

9.53. The para states that out of the 21 major incidents of losses due to fire involving Rs. 13.68 lakhs, seven cases totalling Rs. 4.85 lakhs related to the Central Railway. In the year 1967-68 also the bulk of losses due to fire occurred on the Central Railway.

9.54. The Committee noted that the Accidents Enquiry Committee, 1968, in para 114 of their report made the following observations regarding fires on Central Railway:

> "The position was the worst on the Central Railway on which 21 out of the 41 such cases remained undiagnosed. Taking the cases of fires in trains on the Central Railway itself of which there were 32 in all, the Central Railway was thus unable to determine the cause in 21 or nearly 66 per cent. This Railway even in the preceding 6 years had been unable to determine the cause in 70 per cent of its cases of fires in passenger trains. This is indeed a highly unsatisfactory state of affairs. We are unable to see any special reasons why the Central Railway should be less able to locate the cause of fires in passenger trains than its other counterparts and should accept that position with complacency."

9.55. The Committee enquired whether the Ministry have investigated into the reasons for the large incidence of fires on the Central Railway and particularly the slackness in the matter of investigation into causes of fires commented upon by the Accidents Enquiry Committee. In a note, the Railway Board stated:—

"There have been 188 cases of fire incidents on Central Railway during the year 1970 involving rolling stock 135, railway istallations 12, goods yards and sheds 13, and miscellaneous 28 as compared to 320 cases during the year 1969 involving rolling stock 165, railway installations 11, goods yards and sheds 70 and miscellaneous 74. In a large number of cases a definite conclusion as regards the case of fire could not be reached as all evidences were destroyed. Some cases of 1970 are still under enquiry. However, an analysis of the results of investigations which have been concluded show that the main causes of these fire incidents were electrical origin, spark from locomotive, naked light, spontaneous combustion, chemical reaction and careless smoking. During the years 1969 and 70, 23 and 14 cases of sparks incidents involving losses to the tune of Rs. 5,000/- and above have been investigated by a Committee of Senior Scale Officers. The preventive measures as recommended by the Committee in respect of incidents during the years 1964, 65 and 66 have already been implemented by the Department concerned.

Subsequently, another Committee of Administrative Officers was formed who conducted a study into the causes of fire in coaching stock and as per their recommendations and also the recommendations of the R.D.S.O., necessary electrical and mechanical alterations on coaching stock are being carried out by the Department concerned as remedial measures. In order to arrive at a definite conclusion as regards the cause of fires where all evidences are destroyed due to fire a provision has been made in the Accident manual of the Railway to the effect that the Committee can arrive at the most probable cause of fire when definite cause cannot be established with the objective that this will assist in pinpointing the cause of fire and will give a clue to the preventive measure required.

In order to curb the tendency of lawlessness on the railways, a bill, *viz.* the Indian Railways Amendment Bill, 1970 was

introduced in the Fourth Lok Sabha providing therein deterrent punishment for the miscreants for a term which may extend to 10 years. It has also been recommended in the said bill to increase the fine from Rs. 50|- to Rs. 150|- on those passengers having inflammable articles in the train compartments. Minimum fine of Rs. 25 for the first offence and minimum punishment of 1 month for second and subsequent offences has now been recommended in the said bill."

9.56. The Committee view with concern the increasing amount of losses adjusted each year in the Appropriation Accounts. The amount of Rs. 3.43 crores adjusted towards losses during 1968-69 was in fact the highest over recorded in the last 9 years. It is seen that though the number of accidents are showing a declining trend, the amount of loss during 1968-69 as compared to 1967-68 was much more in all cases such as losses on account of accidents, thefts, fires etc.

9.57. The Committee find that there are still a large number of recommendations of the Railway Accidents Inquiry Committee, 1968 which are awaiting implementation. They should be processed expeditiously and implemented without further loss of time.

9.58. The Committee are also unhappy to note that the recommendations by them in their earlier Reports about the determination of losses relating to thefts and other deficiencies in fittings of rolling stock and their exhibition in Annexure H to the Appropriation Accounts had not been implemented fully by several Railways so far. The Railway Board should take speedy action for their implementation.

9.59. The Committee are also unhappy to note that the incidence of fires on the Central Railways has not been adequately investigated. The Committee fully endorse the following observation made in the Railway Accidents Inquiry Committee Report viz. 'We are unable to see any special reasons why the Central Railway should be less able to locate the causes of fires in passenger trains than its other counterparts and should accept the position with compacency.'

NEW DELHI;
July 26, 1971;
Sravana 4, 1893 (*S*).

ERA SEZHIYAN,
Chairman,
Public Accounts Committee.

APPENDIX—I

(*Para* 1·49 of the report)

Statement showing volume of traffic in terms of tonnes originating (wagon loads & stalls) of commodities charged at class 70 and above for wagon loads

(in thousands)

S. No.	Commodities	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70
1	2	3	4	5	6	7	8	9	10	11	12
1.	Groundnuts with shells .	Not available.					84	66	89	82	51
2.	Cotton raw pressed .	478	357	378	364	233	429	413	381	411	381
3.	Cotton raw unpressed .	58	55	57	52	73	56	61	59	52	62
4.	Jute raw pressed .	Not available					703	756	1,014	640	722
5.	Jute raw unpressed (excluding cutting & waste).						4	3	6	3	3
6.	Tobacco country unmanufactured . .	174	146	130	123	112	88	100	93	103	90
7.	Hides & skins	114	95	86	107	97	104	74	83	80	68
8.	Marble carved monuments tablets ware NOC .						..	..	..	..	—
9.	Marble in blocks, dressed & playing . .	Not available					..	1	..	6	..
10.	Crude oil in bulk . .						1,087	1,488	938	69	145
11.	Crude oil in tins .						58	116	213	11	1

1	2	3	4	5	6	7	8	9	10	11	12
12.	Petrol in bulk . .	671	641	654	708	778	990	931	1,034	1,082	1,442
13.	Petrol in tins . .	130	149	92	95	59	37	10	6	6	5
14.	Other mineral oils dangerous	Not available					56	39	37	42	105
15.	Lac refined . .	3	3	4	4	5	2	21	5	2	1
16.	Bidi leaves .	157	143	129	139	147	152	189	166	168	73
17.	Sugar candy . .	Not available					1	4	1	4	2
18.	Tea . .	250	241	204	219	184	203	291	255	260	272
19.	Soap . .	Not available					50	69	75	82	85
20.	Matches . .	Not available					23	17	18	20	17
21.	Tabocco country manufactured . .	68	61	62	61	68	91	93	104	105	107
22.	Hydrogenated oils .	72	67	42	55	50	35	35	29	34	32
23.	Linseed oil in bottles .	Not available					14	1	1	1	1
24.	Castor oil in bottles .						1	2	1	2	1
25.	Other edible oils Division A . .						..	1	1	1	1
26.	Other edible oils Division B . .						2	1	1	3	..
27.	Other edible oils Division C .						4	1	2	3	10
28.	Cotton manufactured .	380	379	343	335	324	308	266	328	269	235

.	Jute munufactured gunnies & sacking . .	240	226	204	207	204	225	253	243	265	287
0.	Jute manufactured other than gunnies & sacking .	20	22	27	22	35	20	14	11	13	13
31.	Leather munufactured— & skin tanned . .	Not available					2	5	3	1	3
32.	Leather manufactured— other leather manufactures						23	15	16	15	13
33.	Rubber tubes & tyres .						60	69	46	46	77
34.	Rubber or synthetic rubber manufactured . .						24	21	34	31	26
35.	Woollen piece goods .						9	11	14	11	13
36.	Artificial silk piece goods .	Not available					36	46	34	25	27
37.	Silk piece goods .						..	6	1	1	1
38.	Tiles glazed ornamental & china ware (Potteries)						1	1	1	1	1
39.	Iron & steel Division A booked from steel plants.	Not available		66	25	79	57	59	39	77	183
40.	Other iron & steel unwrought booked from steel plants . .	Not Available					255	320	311	349	320
41.	Iron & steel Division A booked from other points	Not available		101	91	145	301	242	231	289	244
42.	Cycle & cycle parts .	Not available					34	32	26	27	22

1	2	3	4	5	6	7	8	9	10	11	12
43.	Motor cars including taxi cars						7	6	9	8	8
44.	Other iron &steel (excluding scrap) booked from other points		ot available				901	713	539	553	554
45.	Electrical goods						206	239	276	301	284
46.	Glass ware	143	125	123	136	131	154	188	152	144	167
47.	Tin pellets etc.						4	4	3	3	2
48.	Tin wares						19	25	22	21	20
49.	Brass ingots						16	8	7	7	6
50.	Brass wares						18	15	13	10	9
51.	Bell metal		Not available				..	..	..	..	..
52.	Copper pellets rods, etc.						11	10	8	4	3
53.	Copper ware						12	20	4	5	5
54.	Zinc ingots or slabs						24	22	29	48	31
55.	Zinc ware						1	1	1	3	1
56.	Lead ware						1	1	1	1	1
57.	Aluminium	65	75	85	101	108	94	141	101	86	73
58.	Paper in cases						22	14	12	7	8
59.	Paper ware						6	5	5	5	3
60.	Pulp board in cases						3	3	2	..	1
61.	Other includings stationery						28	76	38	35	37

62. Paints and varnishes .	Not available	34	31	26	24	20
63. Colours & dyes—Division A		17	16	15	14	12
64. Colours & dyes—Division B		13	9	8	9	7
65. Fireworks . .		4	5	6	8	8
66. Medicines .		42	39	41	38	34
67. Alcohol . . .		25	29	17	14	27
68. Acids . . .		21	20	28	19	20
69. Provisions . .		519	443	499	406	527
70. Gases . . .		17	17	20	15	24
71. Wool raw & waste .		20	20	22	20	24
72. Silk raw & waste . .		3	..	..	..	..
73. Hemps & fibres . .		29	22	15	21	12
74. Rubber crude & raw .		13	17	16	16	19
75. Opium & other narcotic drugs . .		16	15	17	25	20
76. Cine motograph films .		..	1	..	..	..
77. Other commodities (not specified separately) carried at class 70 and above .		1,487	1,844	1,350	938	985
GRAND TOTAL . .		9,446	10,162	9,253	7,510	8,194

APPENDIX II

(*Para* 1.53 of the Report)

Note showing how far the various measures taken by the Railways in the recent years to attract more traffic have actually increased the traffic and comparative position of the traffic moved, before and after the introduction of each measure.

By the end of the third Five Year Plan, the capacity developed by the Railways to move goods traffic had an edge over the demand for rail transport, but road transport had also simultaneously expanded. The Committee on Transport Policy & Co-ordination had recommended a co-ordinated effort rather than wasteful competition or duplication in the total effort to meet the country's transport needs. However, the increase in surfaced road kilometrage and in the number of trucks on the road accompanied by liberal issue of permits to road hauliers generated competition on routes, including long distance, on which capacity existed on the Railways. Further, the road hauliers were largely moving the high-rated commodities resulting in the percentage of low rated traffic to total traffic carried steadily increasing on the Railways. The inevitable adverse effect on the Railways finances was a cause for concern to the Railways and also to the country which had an investment of over Rs. 3,000 crores on the Railways. To meet the situation, the Railways stepped up their efforts to retain existing volume of traffic, to recapture high-rated traffic and to improve services provided to the users. Some of the measures taken to attract traffic to rail are given below:

2. Marketing and Sales Organisations under Marketing & sales Superintendents were set up on each railway by the middle of 1967. These organisations are required to conduct market research, study the pattern of movement of traffic, canvass additional traffic for the Railways and maintain liaison and conduct with the trade and industry. They watch the trend of movement of selected commodities, analyse the reasons for fall where noted and initiate remedial action to retrieve the position.

As a result of the attention being concentrated on lifting of selected high-rated commodities, during April to October, 1970 the tonnage of selected high-rated commodities lifted has recorded an increase of 4.7 per cent over the figures of corresponding period of

previous year. This is in spite of the dislocation in operations brought about by heavy rains in different parts of the country, cases of go slow tactics and wild cat strikes by some sections of staff and unsettled conditions experienced from time to time in some of the areas/trades/industries served by South-Eastern, Eastern and North-east Frontier Railways during the current financial year.

3. With a view to provide efficient door to door service, the Indian Railways introduced container services on Bombay-Ahmedabad route in December, 1966. Encouraged by the good response that the Service evoked from the trade and industry, it was extended to the following routes:

Bombay—New Delhi
Madras—Bangalore
New Delhi—Howrah
Bombay—Madras
Bombay—Secunderabad
Bombay—Bangalore
Calcutta—Madras

It is proposed to introduce the Service on Bombay-Calcutta route shortly.

The figures given below indicate the growing popularity of the Service:

Financial Year.	No. of containers loaded.	Feight earnings Rs.
1966-67	1864	3,68,000
1967-68	3540	9,34,000
1968-69	9306	34,94,000
1969-70	20484	73,15,000
1970-71 (Upto Nov.)	15991	59,24,000

4. Another important step towards providing an efficient door to door service was the introduction of Freight Forwarded Service for conventional wagons introduced between Bombay and Calcutta and between Calcutta and Madras from July, 1969. Under this

Scheme, the freight forwarder collects consignments from his customers and offers them as a wagon load for transport between the specified pairs of stations at fixed lump sum wagon rates. The collection and delivery of the consignments at the booking/destination stations is done by the freight forwarder with his own machinery unrelated to the Railways. The freight forwarder is not a contractor or an agent of the railway but offers traffic as a consignor to the Railway. There was initial reluctance on the part of road hauliers to patronise the scheme as they feared that it would cut into their traffic. However, as a result of strenuous efforts by the Railways and better appreciation of the scheme by the road hauliers, booking of the traffic under the scheme has picked up and the scheme was recently extended to more routes *i.e.* Cochin to Calcutta and Bombay to Tata Nagar. Introduction of the scheme from Howrah to Patna, Howrah to Agra, Howrah to Kanpur and from Malkapur/Wardha/Amraoti/Dhamangaon/Akola to Ahmedabad has also been approved. Extension of the Service to more routes is being planned.

The loading under the scheme has picked from an average of 55 wagons per month giving a freight earning of about Rs. 1.37 lakhs during 1969-70 to 178 wagons per month giving a freight earning of Rs. 4.55 lakhs during the current financial year upto November, 1970.

5. It has been the constant endeavour of the Railways to ensure full and prompt supply of wagons and towards this end, 28 major goods sheds have been exempted, as far as possible, from the purview of operating restrictions.

6. To provide speedier transit, the Railways are running Super Express Goods services between six important pairs of stations.

Quick Transit Service guaranteeing delivery of goods within specified period between important pairs of stations has also been provided between about 69 pairs of stations.

7. To bring booking/delivery of goods nearer the premises of the customers, Railways have opened Out Agencies, City Booking Agencies and Street Collection and Delivery Services. There are 166 Out Agencies, 125 City Booking Agencies/Offices. Street Collection and Delivery Services have been provided at 32 stations.

8. The Railways continue to quote special station to station rates which are lesser than the tariff rate for movement of traffic where justified and feasible. During 1969-70, 21 station to station rates were quoted and 182 station to station rates were extended. During the

current financial year, the General Managers have been delegated wide powers to quote stations to stations rates.

9. A One-Man Expert Committee was set up in August 1969 to go into the whole question of compensation claims. The Committee submitted its report in April 1970 and implementation of the recommendations is being progressed as necessary.

10. The importance of courteous behaviour and helpful attitude on the part of railway staff towards the rail users is brought home to the staff from time to time through courtesy weeks and seminars. The railways have also been asked to include this subject in the training programme of all staff having dealings with the public. It has been impressed upon the Railways that timely assistance, courtesy to users etc., should be ensured by concerted efforts and surprise checks at all levels. Complaints received from the users regarding lack of courtesy/helpful attitude on the part of staff are thoroughly investigated and action taken against those found guilty.

11. It is not possible to specifically assess the increase in traffic brought about by each of the above-mentioned measures. However, they have contributed towards increasing the tonnage of revenue earning traffic excluding selected low rated commodities (coal, ores, marble and stones, cement, foodgrains, fertilizers, fodder and salt) as follows:—

(Figures in millions.)

Year.	Total tonnage low-rated	Total of selected low-rated commo-dities.	Tonnage of other commodi-dities.
1967-68	162·4	117·2	45·2
1968-69	170·8	124·3	46·5
1969-70	173·8	126·1	47·7

APPENDIX III

(*Para* 1.109 of the Report)

Note on procedure of accounting leading to the working out of station outstandings under the manual accounting system and after the computerisation

1. "Station Outstandings" represent amount for which station masters have become accountable but are still to liquidate their liability either by remittance of cash/vouchers or by taking special credits as authorised under the rules upto the close of the month. The outstandings comprise generally of—

(i) freight on 'to pay' consignments on hand awaiting delivery and consignments not on hand—the Invoices/P.W. Bills for which have been accounted for and would be cleared on receipt and delivery of consignments;

(ii) Demurrage/wharfage charges levied for detention of wagons after the expiry of free time allowed for loading/unloading and consignments brought to railway premises for despatch or those available for delivery but not taken delivery of or not removed;

(iii) debits raised by Accounts office etc. as a result of internal check of various returns submitted by the stations;

(iv) imprest cash and disallowances by cashier as a result of counting and shroffing of the cash remitted by stations; and

(v) other miscellaneous items including unsold idemnity bonds, time tables etc. The bulk of the outstandings pertain to freight outstandings.

2. The difference in procedure caused by introduction of mechanised methods of accounting is limited to the accountal of freight outstandings on goods traffic, the other components of the outstandings being regulated without any change from the manual system. This difference in procedure in so far as it relates to station outstandings, is relevant with regard to "to pay" goods, traffic, the responsibility for collection of freight on which rests entirely with the destination station.

3. *Procedure for goods traffic under the Manual Accounting system.*

Freight on "to pay" consignments accrues from the time of receipt of either the destination copy of the invoices or the consignment. Although, under the rules, the delivery books of the stations were required to be kept open for seven days after the close of the calender month, cases where neither the invoices nor the consignments are received at the destination station within the gap of seven days did occur because the period of transit ranges anywhere between 4 days to 20 days approximately.

4. *Procedure after introduction of mechanised accounting.*

Prior to mechanisation, as explained above, accountal of a transaction was related either to the receipt of the invoice/or the consignment at the destination station i.e. the transaction took a few days after booking at the originating station to be captured in the accounts. With mechanisation the system of accountal was changed from the "received" to the "forwarded" basis. In this system, the transactions are captured in accounts immediately on booking and the full month's transactions are included by the data processing section of the forwarding Railway in the Machine Prepared Abstracts. These Machine Prepared Abstracts are distributed to the receiving stations by the 15th of the following month and items which have not already been taken into account by the receiving station in the delivery book are forced into the same. Thus the time-lag of approximately 4 to 20 days which existed in the previous system before transactions were captured in accounts has been eliminated which naturally led to an equivalent number of days transactions being added to the outstandings at the destination station on this amount.

APPENDIX IV

(*Para* 3·7 of the Report)

Statement showing details of requirements Orders placed for the 'O' type wagons on private firms and Railway workshops and the supplies made by them between 1958 and 1964.

Name of wagon builder/Rly. Workshop.	1958-59		1959-60		1960-61		1961-62		1962-63		1963-64	
	Ordered	Production	Ordered	Production	Ordered	Production	Ordered	Production	Ordered	Production	Ordered	Production
Braithwaite	*1277	..	..	..	..	..	..	..	..	..	..	..
I. S. W.	1600	*610	..	*1590	..	..	..	..	..	..	..	..
Balmer Lawrie	650	*812	..	*477	..	..	..	..	..	..	..	..
Jessops	..	..	..	..	1000	..	..	84	..	684	..	232
Raymon Engg.	..	..	..	..	..	..	..	..	1000	53	..	465
Britannia	..	..	..	..	..	..	..	..	300	300	..	..
Mckenzies	..	@324	..	@179	..	..	..	..	..	..	..	..
Northern-Amritsar	..	..	..	..	..	..	500	..	..	2	..	122
Northern-Jagadhri	..	..	..	..	..	..	500	..	..	..	..	155
Western-Mahalaxmi	..	..	..	..	..	..	500	11	..	..	724	..
Central-Jhansi	..	..	..	..	..	..	1500	3	..	119	500	495
Eastern-Liluah	..	..	..	..	..	..	2200	2	..	245	276	537
Southern-Golden Rock	..	..	..	..	..	..	1000	2	..	179	500	822

*including production against earlier orders.
@Production against earlier orders.

APPENDIX V

(Para 5.36 of the Report)

Statement showing the load and No. of Wagons of Trains Hauled by Steam & Diesel locos on Rajahmundry-Waltair Section.

Month		Up 1964 Av. load per train	Up 1964 No. of wagons per train	Dn 1964 Av. load per train	Dn 1964 No. of wagons per train	Up 1965 Av. load per train	Up 1965 No. of wagons per train	Dn 1965 Av. load per train	Dn 1965 No. of wagons per train	Up 1966 Av. load per train	Up 1966 No. of wagons per train	Dn 1966 Av. load per train	Dn 1966 No. of wagons per train	Up 1967 Av. load per train	Up 1967 No. of wagons per train	Dn 1967 Av. load per train	Dn 1967 No. of wagons per train	Up 1968 Av. load per train	Up 1968 No. of wagons per train	Dn 1968 Av. load per train	Dn 1968 No. of wagons per train	Up 1969 Av. load per train	Up 1969 No. of wagons per train	Dn 1969 Av. load per train	Dn 1969 No. of wagons per train
Jan.	S	1896	60.5	1231	51.6	1881	59.4	1298	55.4	1943	62.9	1354	59.4					1641	58.1	1042	45.2	1844	59.0	1477	72.0
	D	..	–	–	–	–	–	–	–	2000	61.7	2091	77.7					2062	64.7	1462	54.8	2365	72.0	1845	70.0
Feb.	S	1871	60.4	1328	52.0	1834	59.0	1287	55.9	1461	62.5	1890	63.0					1553	52.8	969	44.3	1855	60.0	1267	59.0
	D	–	–	–	–	–	–	–	–	–	–	1865	72.4					2096	64.5	1644	59.6	2368	72.0	1307	69.0
Mar.	S	1879	60.3	1318	55.2	1342	58.2	1387	58.1	2042	62.8	1449	63.2					1725	53.6	901	50.0	1905	61.0	1094	54.0
	D	–	–	–	–	–	–	–	–	–	–	1722	85.8					2055	64.3	1578	52.9	2374	73.0	1307	73.0
April	S	1873	60.0	1246	54.2	1359	60.6	1406	58.5	1915	62.9	1414	61.3					1908	59.4	1061	48.4	1987	62.0	1304	59.0
	D	–	–	–	–	–	–	–	–	2000	62.0	1630	55.0					2096	64.4	1524	54.9	2448	74.0	1196	72.0
May	S	1882	61.6	1305	55.3	1750	56.3	1450	55.7	1869	63.0	1394	56.9					1793	56.3	882	38.8	1891	55.0	1249	58.0
	D	–	–	–	–	–	–	–	–	–	No trains run.		–					2130	67.3	1597	57.7	2374	75.0	1280	69.0
June	S	1843	60.2	1213	51.8	1895	61.5	1339	57.0	1909	63.3	1226	58.6					2071	72.0	932	44.0	1859	58.0	1386	63.0
	D	–	–	–	–	–	–	–	–	–	No trains run.		–					2127	70.0	1495	57.0	2398	72.0	1396	74.0
July	S	1766	58.1	1224	52.4	1878	60.2	1281	57.3	1870	63.2	1296	57.2	1577	56.7			1652	53.0	1046	42.8	2014	66.0	1059	52.0
	D	–	–	–	–	1979	54.0	–	–	2106	70.6	1578	71.0	1932	53.5			2127	67.0	1459	56.0	2388	72.0	1444	69.0
Aug.	S	1816	58.3	1205	51.2	1812	58.7	1288	52.4	1983	62.7	1196	55.4	1467	43.3			1816	59.7	949	48.8	2013	65.0	1061	56.0
	D	–	–	–	–	2044	67.8	1472	63.4	2095	71.6	1588	72.3	1911	53.1			2150	69.0	1591	56.0				
Sep.	S	1858	60.9	1305	54.7	1920	60.6	1322	55.9	1902	62.2	1227	58.4	1571	46.0			1787	56.0	1164	52.0	1938	60.0	1222	61.0
	D	–	–	–	–	1859	68.0	1582	63.6	2081	71.9	1420	72.1	1925	60.2			2231	69.0	1434	58.0				
Oct.	S	1750	56.0	1314	55.3	1815	61.9	1347	58.7					1587	46.1	1154	37.0	1905	61.0	1172	55.0	1872	62.0	1355	60.0
	D	–	–	–	–	1912	60.2	2210	70.5					2040	71.7	1549	40.2	2188	68.0	1357	56.0				
Nov.	S	1743	56.3	1277	53.0	1917	63.6	1355	58.3					1648	354.0	1098	41.0	1794	57.0	1025	46.0	1868	60.0	1188	60.0
	D	–	–	–	–	–	No trains run		–					2045	78.7	1399	47.3	2187	68.0	1473	59.0	2384	73.0	1586	74.0
Dec.	S	1784	55.3	1312	55.1	1954	63.4	1395	60.4					1657	53.3	1127	46.1	2013	61.0	1212	56.0	1907	61.0	1321	53.0
	D	–	–	–	–	1999	66.6	1207	70.0					1854	53.7	1915	64.0	2317	70.0	1245	58.0	2402	72.0	1424	76.0

S=Steam
D=Diesel

APPENDIX VI

(Para 5·48 of the Report)

Statement giving Chronological List of events

Main Events

Date.	
	Work included in Works Programme 1957-58 at the cost of Rs. 30 lakhs
23-6-58 . .	Permission to call tenders received from Board.
5-9-58 . . .	Plans finalised in consultation with Division and COPS for two alternative schemes, (a) single cabin route relay interlocking and (b) two cabins with power frames. In view of the special nature of Delhi main which is a terminal cum through yard, two alternative schemes were worked out as such work was being taken up for the first time on Northern Railways.
11/58 to 8/59 . .	Tender documents sent to Finance for vetting. Tender documents vetted by Finance but calarification required from the Board for inviting global tender. As a result of the clarification received, tender documents necessitated revision which were finally vetted in August, 1959.
8/59 to 3/60 . .	Tenders were called in August 1959 on the basis of two alternativ, schemes referred to above and quotations opened on 1-3-60.
3/60 to 12/60 . .	As a result of detailed examination of the tenders, single cabin scheme was preferred but certain improvements to the shunting and route setting facilities were considered necessary. Original plan for single cabin scheme was revised to include these facilities in Decembe 1960 and all firms were asked to advise variation in prices on account of modification in the plan on 23rd December, 1960.
1/61 to 3/61. . .	COPS on 9-1-61 desired that shunting operations of single cabin working should be examined by a Committee of Divisional Officers. The Committee consisting of DOS(M), DOS(G) and DSTE (Works) made detailed examination and recommended on 4-2-61 that a number of additional shunt signals should be provided and adequate distance for reception of trains reduced to 100 feet. ACRS was requested for reducing the adequate distance for reception of trains from 400 to 100 feet. On 6-3-61 ACRS declined to reduce the adequate distance.
3/61 to 8 61. . .	6 out of 8 firms submitted their revised quotations with reference to the modifications suggested on 23-12-60. COPS on 1-5-61 finally confirmed the decision in favour of central cabin scheme in preference to two cabins scheme. Tenders examined by the Tender Committee and recommendations sent to Board on 3-8-61.
9/61 to 4/62 . .	Boards' decision regarding the tenders received on 23-9-61. Advance acceptance letter issued on 4-10-61 and contract agreement signed in April 1962.

4/62 to 7/63 . .	ACRS indicated willingness to consider reduction of overlap from 400 to 300 feet. Based on yard condtions it was decided to apply for reduction to 250 feet. With such a reduced overlap it would have been possible to have 137 pairs of additional simultanous reception and despatch facilities which greatly facilitate shunting operations. 27 additional shunt signals and 15 "Free to Shunt" indicators to drives were called for. Such alterations if carried out later, after commissioning of this work would have cost about Rs. 18 lakhs extra. Plans were accordingly revised in April 1963, ACRS gave his final sanction to the reduction on 23-7-63.
8/63 to 6/64 . .	Revised plans were finalised in August 1963. Firm was asked to send quotations for supplementary materials in September 1963.
6/64 to 8/64 . .	Construction of cabin started. Firm's erector arrived in August 1964 to start cable work and worked upto April 1965.
10/64 to 5/65. .	Proposal to demolish the existing refuse siding and existing shunt dead end siding and extension to platforms No. 1 and 2 received Extension of Platforms No. 1 and 2 dropped in May 1965 and plan again modified in May 1965.
10/65 to 7/66. .	Firms' final quotations for additional requirements received. Finance concurrence of the same obtained in November 1965. In January 1966 Railway Board approached for additional foreign exchange. Boards' sanctined received in June 1966 and the firm advised to supply the additional equipment on 28-7-66.
1/66 to 11/67. .	Firm's erector was called to re-commence the work in January 1966 and the installation was completed in August 1967 and testing of installation was completed in November 1967.
30-1-68 to 14-2-68. .	Yard was non-interlocked on 30-1-68 and route relay interlocking commissioned on 14-2-68

APPENDIX VII

(*Para* 7·20 of the Report)

Statement showing relative economics of Movement of Coal traffic by Bina-Kota and Bina-Bhopal-Nagda Kota route—

Assumptions adopted	By direct route Bina-Kota	By longer route Bina-Bhopal-Nagda-Kota.
1. Number of rakes		
(a) July, 1965 to Feb. 67:	310 rakes with 11 BOX wagons (W.D. engine single headed) each.	131 rakes received at Bina with 26 BOX-wagons (Diesel loco) each.
(b) March, 1967 to December, 1967:	33 rakes with 22 BOX (W.D. Double headed) each.	28 rakes with 26 BOX wagon (Diesel loco) each.
2. Marshalling Engine Changing	Bina (Marshalling)	Nagda Engine changing 6 hrs.
3. Gross loads.	(i) Single headed WD upto Feb., 1967, 900 tonnes or 11 BOX wagons. (ii) March, 1967 to August 1967—Double headed WD with 1760 tonnes or 22 BOX wagons.	WDM2 Diesel-26 BOX wagon with gross load 2080 tonnes.
4. Transit time:	Steam:	Diesel:
(a) Speed for 66-67	15·1 Kms per hours	Bina-Bhopal . . 25 Km H Bhopal-Ujjain . 20·00 ,, Ujjain-Nagda . 21·90 ,, Nagda-Kota . . 27·60 ,,
(b) en-route Detention	48 hrs. at Bina for formation of rake and marshalling	Half hour at Bhopal for refueling
5. Type of movement	Through	Through
6. Light engine provision.	(i) Steam-Kota-Bina .	..
	(ii) Diesel—Bina-Katni	..

NOTE : (i) Unit cost for Central Western Railway for 1966-67 have been applied.

(ii) All common costs have been excluded.

(iii) No allowance for empties has been given as they would, on release, move out via Agra, East Bank. Only loaded direction cost has been worked out.

Comparative cost of haulage of coal in Box wagons ex-Katni to Kota area via (i) Bina - Kota (dirct route) and (ii) Bina-Bhopal Ujjain-Nagda-Kota (diverted route).

	Bina-Kota (direct route)			Bina-Bhoal Ujjain-Nagda-Kota (diverted route)—diesel single headed	Savings(+) or Loss(—) by longer route.
	W.D. single headed	W. D. double headed	Total (steam)		
	1	2	3	4	5
1. Distance in Km	303	303	303	602	
2. Number of rakes	131 310	28 33	159 343	159	
3. Av. No. of Box wagon per per rake	11	22	..	26	
4. Gross load per rake	880	1760	..	2080	
5. Marshalling/engine changing points	Bina marshalling	Bina marshalling		Nagda—engine changing	
6. Wagon transit time (Bina-Kota via shorter & longer route.	3.15 days	3.15 days		1.43 days	
	(including detention at Bina Marshalling yard)			(including detention at Nagda for engine changing)	
7. Engine days required per rake					
(a) For train running	2.53	5.06		1.75	
(b) Light engine steam (Bina-Kota)	2.53	5.06		..	
Light engine diesel (Bina-(Katni)	0.78	0.78		..	
COST DATA.					
1. Marshalling/Engine changing	66,260	14,107	80,367	16,417	(+)63,950
2. Line haul-Traction. (a) Fuel	2,60,186	55,394	3,15,580	6,64,348	(+)3,48,668
(b) Engine crew, repairs, & maintenance of locos	1,94,752	41,471	2,36,223	55,229	(+)1,80,994
3. Line haul other transportation	1,93,913	20,643	2,14,556	2,10,292	(+)4,264
4. Line haul-track of signalling.	11,25,447	2,39,611	13,65,058	6,18,208	(+)7,46,850
5. Repairs and maintenance of wagons	58,677	12,421	71,098	32,136	(+)38,962
6. Interest & development charges on locos (for train rakes)	88,634	18,870	1,07,504	1,80,648	(+)73,144
7. Do. (wagon)	1,94,207	41,347	2,35,654	1,06,382	(+) 1,28,672
8. Additional cost for light engines including interest & DRF.					
(a) Steam engine (Kota-Bina)	6,65,240	99,051	5,64,291	..	(+)5,64,291
(b) Diesel (Bina-Katni)	4,66,954	49,708	5,16,662	..	(+)5,16,662
TOTAL	31,14,270	5,92,623	37,06,893	18,84,060	(+)18,22,833

APPENDIX VIII

(*Para* 7·24 of the Report)

Statement showing cases where traffic is moved by a route other than the shortest route.

S. No.	Pattern of traffic	Shortest route	Route by which traffic being sent	Addl. lead involved	Reasons for diversion	Works necessary for creating addl. capacity
1.	Traffic from North (Punjab Haryana, Delhi etc.) to South (Andhra Pradesh, Tamil Nadu, Kerala etc.) and vice versa.	Via Itarsi-Nagpur-Wardha-Balharshah	(i) Via Itarsi-Bhusaval-Badnera-Wardha OR (ii) Traffic for destinations on S. Rly. via Arkonam routed via Itarsi-Bhusaval-Manmad-Dhond section.	239 kms.	(i) Inadequate capacity on Itarsi-Nagpur-Wardha sections of C. Rly. and load limitation owing to heavy gradient. (ii) As above and also inadequate capacity on single line portions of Balharshah-Dornakal & Kistna Canal-Tsunduru sections of S. C. Railways.	1. Doubling and other line capacity works on Itarsi-Nagpur section. 2. Doubling of Belampalli-Dornakal and Kistna Canal-Tsundru section.
2.	Coal and other traffic via New Katni Jn. to BG stations on W. Rly. reached via Bhopal.	Via New Katni-Bina-Bhopal.	New Katni-Itarsi-Bhopal.	27 kms.		Doubling of Bina-Katni Section
3.	Traffic from S. C. Rly. and via to Bombay Area and stations on W. Rly. via Dadar Junction.	Via Dhond-Poona-Kalyan.	Via Dhond-Manmad-Igatpuri-Kalyan.	238 kms.	Inadequate capacity and load limitations on Karjat-Lonavla ghat section.	Provision of a third line on the ghat. (This will have to await till the future pattern/quantum of traffic in food grains, fertilizers POL products etc. over these ghats becomes clear).

S.No.	Pattern of traffic	Shortest route	Route by which traffic being sent	Addl. lead involved	Reasons for diversion	Works necessary for creating addl. capacity
4.	Traffic for BG stations via Agra East Bank from MG Stations in Saurashtra.	Via Mehsana-Palanpur Ajmer on the metre gauge.	Via Viramgam and onwards on BG route after transhipment at Viramgam.	51 kms.	Due to Mehsana-Ajmer MG route being fully saturated and limited transhipment capacity at Agra East Bank.	1. Development of additional transhipment capacity at Agra East Bank will have to await a final position about movement of gypsum to Sindri being available. 2. Increasing capacity on M.G. route can only be considered when a decision about gauge conversion has been taken.
5.	Traffic from Porbandar/Junagadh area for Rajkot and beyond towards Surendranagar and vice versa.	Via Jetalsar-Rajkot-Surendranagar.	Via Botad-Surendranagar.	53 kms.	Due to saturation on Rajkot-Surendranagar section.	Development of capacity on Rajkot-Surendranagar section has to pend till final decision about conversion of this section to broad gauge is taken.
6.	Traffic between destinations north of Waltair and stations south of Vijayawada.	Waltair-Vijayawada-Tsunduru.	Nidadavolu-Vijayawada-Guntur (only traffic surplus to capacity on Vijayawada-Nidadavolu routed by this route).	29 kms.	Inadequate capacity on Nidadavolu-Vijaywada and Kistna Canal-Tsunduru Sections.	Doubling of Nidadavolu-Vijayawada and Tsunduru-Kistna Canal sections.
7	Traffic from Kandla-Gandhidham area to stations in Delhi area and stations via Agra East Bank.	Kandla-Palanpur-Ajmer-Phulera.	Via Kandla-Baroda-Ratlam B. G. route.	176 kms. area) 34 kms. (for Agra East Bank)	Some reasons as for Delhi in case of item 4.	The haulage cost by BG being less than by MG. this diversion does not involve any additional cost. Further, till the future of conversion of MG routes on Western Railway is known, it is not considered advisable to invest addl. capital on the metre gauge routes at this stage.

8.	Traffic from Tughlakabad side to stations beyond Ambala Cantt. i.e. Ludhiana Jullundur, Amritsar etc.	Via Ambala Cantt.	Via Bhatinda.	180 kms.	Inadequate capacity on Delhi-Ambala section and on Delhi Avoiding Line.	Doubling or Delhi-Ambala section and Delhi Avoiding Line at an estimated cost of Rs. 31 crores. (In view of heavy cost involved, these works are not justified).
9.	Do.	Do.	Via Khanalampura-Ambala.	95 kms.	Do.	Do.
10.	Traffic between Moradabad and Bareilly	Bareilly-Moradabad.	Via Chandausi (Only traffic surplus to capacity on Bareilly-Moradabad section being carried by the longer route).	22 kms.	Inadequate capacity on Bareilly-Moradabad section.	Doubling of Moradabad-Bareilly section at an estimated cost of Rs. 7.28 crores (In view of the small quantum of traffic being diverted by the longer route and the lead by the longer route being only 22 kms more than by the shortest route, the heavy investment required for developing capacity on the shortest route not justified.
11.	Traffic from MG stations on Western Rly. (including via Agra East Bank) and stations on N. E. Rly. West of Kanpur to stations on N. E. Railway east of Lucknow and vice versa.	Via Kasganj-Kanpur Anwarganj.	Via Bareilly-Mailani (1 to 2 trains each way diverted by this route depending upon traffic offering)	56 kms.	Inadequate capacity on Kanpur-Lucknow section and in Kanpur Anwarganj yard.	Increasing capacity of Kanpur Anwarganj yard (for which room is not available and increase capacity on Kanpur-Lucknow section (a decision about development of which can only be undertaken when a final decision about conversion of Barabanki-Gorakhpur section to BG is known).
12.	Traffic between Lucknow and stations west of Lucknow and Varanasi and stations east of Varanasi and beyond, on	Via Lucknow-Sultanpur.	Dn. Direction-via Lucknow-Sultanpur Up Direction,—via Lucknow-Pratapgarh	26 kms.	This pattern of routing means uniflow in which traffic flows in one direction only on the section, and thus movement	In view of reasons mentioned in preceding column, no works are necessary as this pattern of movement will continue.

S.No.	Pattern of traffic	Shortest route	Route by which traffic being sent	Addl. lead involved	Reasons for diversion	Works necessary for creating addl. capacity
	Northern Eastern Railway.				is speeded up by reducing the number of crossings.	
13.	Traffic between MG stations on N.F. Railway and BG stations on Eastern Railway in Howrah and Sealdah Divisions.	Via Farakka	Via Katihar-Garhara (This diversion is done when the traffic offering is in excess of capacity at Farakka.	209 kms. (346 lesser lead on B.G.) (555 kms more lad on M.G.	Due to limited capacity on wagon ferry at Farakka.	Completion of rail bridge over Farakka.

APPENDIX IX

Summary of main Conclusions/Recommendations

S. No.	Para No. of the Report.	Ministry/Department concerned	Conclusion/Recommendation
1	2	3	4
1	1·12	Ministry of Railways	The Committee view with concern the disproportionate increase in the working expenses of Southern, North Eastern and Northeast Frontier Railways as compared to the increase in their gross receipts during 1968-69. The combined working expenses of these three Railways exceeded their gross receipts by Rs. 17.20 crores. This figure exceeds even the total increase in the Revenue expenditure on all Railways during 1968-69 by Rs. 0.63 crores. This calls for special drive for effecting economies on these Railways.
2	1·13	Do.	The Committee observe that the difference in percentages of increase in the gross receipts and working expenses of all Railways increase in the gross receipts and working expenses of all Railways in 1968-69 over 1966-67 was not much. However, in the case of these three deficit Railways, the gap between the percentages of increase in working expenses and increase in gross receipts was very much pronounced. The Committee desire that the reasons for this widening gap should be studied with a view to taking remedial action and earning greater revenue on these Railways.

1	2	3	4
3	1·20	Ministry of Railways.	The Committee find that so far as the Working expenses of Railways are concerned there is a persistent tendency towards increase from year to year. To some extent, this is inevitable in the context of rising prices and wages. In the circumstances Railways will have to make determined efforts not only to minimise waste but also to effect economies in their expenses. The Committee hope that the assued vigilance "now than anytime before" about expenditure would result in substantial economies. As a mere 5 per cent cut in the working expenses could turn the deficit of Railways into surplus, the Committee would like Government to make an all out effort to pull Railways out of the red.
4	1·32	Do.	The Committee note that as a matter of policy there would be no closing of any of the existing unremunerative branch lines. The High Power Committee which went into the question of improving the working of such branch lines, so as to make them economically viable made certain recommendations which *inter alia* covered conversion of guages and extension of lines. These would cost about Rs. 240 crores. The Committee were informed that the justification for additional investments on conversion-cum-extension had to be examined. The Committee would like the results of the examination to be intimated to them.
5	1·33	Do.	The Committee refrain from making any observation on the continuation of and the losses incurred by the unremunerative

			Branch lines as the Railway Convention Committee, which is likely to be constituted shortly, may like to go into this question in detail.
6	1·34	Do.	The Committee, however, note with concern that two of the unremunerative branch lines which were already dismantled were restored at the cost of Rs. 59.18 lakhs.
7	1·43	Do.	The Committee note that actual goods earnings exceeded the budget by Rs. 17.79 crores. The increase is attributed to increased leads not anticipated at the time of framing the budget. That this could not be estimated accurately does not speak well of the present system of estimation of traffic. The Committee desire that the Ministry of Railways should look into this lacuna and see how the estimation of lead could be improved to have a realistic assessment of anticipated goods earnings in future.
8	1·73	Do.	The Committee find that the percentage of high-rated commodities to the total movement of goods traffic has come down and that it is only of the order of 3 to 4 per cent of total tonnage. Originating traffic of these commodities fell from 9253 tonnes in 1967-68 to 7510 tonnes in 1968-69. The Committee would like Government to ensure that at least the volumes of high-rated commodities is not reduced further.
9	1·74	Do.	The Committee are concerned to find that the percentage of total compensation claims paid to the freight earnings during the year 1968-69 registered an increase over that of the previous year. The percentage during 1968-69 was 1.47 as against 0.06 of Japanese

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			National Railways and 0.26 of German Federal Railways. The Committee were informed that 60 per cent of the total losses in transit on Indian Railways were on account of pilferage and theft and the balance was due to damage in handling. It is obvious that such huge losses have affected the growth of goods traffic. The Committee hope that all possible steps will be taken to minimise the transit losses so as to instil confidence among the consignees.
10	1·75	M/Railways.	Despite various measures taken in the recent past to attract more traffic, the Committee note that there has been a steep decline in the percentage of rail movement of commodities such as sugar and cotton manufacturers to their total production. The percentage of movement of sugar fell from 82.3 per cent in 1950-51 to 46.0 per cent in 1967-68 and 21.8 per cent in 1968-69 and that of cotton manufactures from 81.0 per cent in 1950-51 to 28.7 per cent in 1967-68 and to 22.0 per cent in 1968-69. These figures speak for themselves. The Committee would therefore like the Railway Board to examine as to what further steps should be taken to arrest this trend and to maintain the Railway's share of movement in the total production of such commodities at a reasonable level.
11	1·83	Do.	The Committee note that the actual passenger earnings fell short of the Budget by Rs. 12.90 crores mainly on account of a check in the growth of passenger traffic which was even less than that of

			the previous year by 2.0 per cent against an increase of 3.5 per cent anticipated in the Budget. The Committee are concerned to find that this was the first time in the recent years when the originating passenger traffic carried during the year showed a decline over that of the previous year. They were, however, informed that subsequently traffic had picked up and that the abnormality in the year 1968-69 was attributable to natural calamities. The Committee hope that the growth of passenger traffic will be maintained in future by ensuring better service and punctuality in running trains.
12	1·95	Do.	The Committee note that the Railway Convention Committee, 1965 after having considered the requirements during the period 1966—71 for the purpose of replacement of locomotives, rolling stock and track renewals etc. which were estimated by the Railway Board at Rs. 650 crores, recommended that "the appropriation to Depreciation Reserve Fund from Railway revenues may be increased to an average of Rs. 130 crores per year for the quinquennium 66—71 or as close thereto as possible, taking account of the financial position". The Committee therefore feel that the yearly appropriation to the Depreciation Reserve Fund should have been regulated according to the actual requirements during each year. However, during the four years from 1966-67 to 1969-70 the total appropriations to the Fund amounted to Rs. 408.37 crores while the withdrawals for meeting the expenditure on replacements from the Fund were of the order of Rs. 327.68 crores only. There was a net accretion of Rs. 80.69

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			crores to the Fund during these four years even when the Railways suffered a deficit of Rs. 67.49 crores over these years. The Committee consider that in years when the Railways run at a loss, the contribution to the Fund should be related as far as possible to the actual requirements.
13	1·111	M/Railways.	The Committee are concerned to note that the station outstandings have increased three fold during the four years ending 31st March, 1969. The percentage of total outstandings to gross earnings has also doubled during this period thereby indicating that the increase in the station outstandings was disproportionate to the growth of gross earnings. Outstandings over one year old increased from Rs. 1.92 crores in 1964-65 to Rs. 5.08 crores to 1968-69.
14	1·112	Do.	The Committee regret to observe that instead of showing improvement the position has deteriorated since 1962-63 when the Committee had in their 40th Report emphasized the need for tightening up of the existing procedure with a view to clear the outstandings. The outstandings have since then been steadily rising from year to year. It is seen from the Audit para that out of the total outstandings of Rs. 31.03 crores for the year ending 31st March, 1969 'Freight on consignments on hand' and 'Freight on consignments not to hand' account for Rs. 25.87 crores i.e. about 80 per cent. The Committee would like the Railway Board to examine in this context whether the existing rules regarding filling of compensation claims and

			transference of consignments to Lost Property Office call for a revision.
15	1·113	Do.	The Committee note that Railways are already insisting on pre-payment of freight on certain categories of consignments. The Committee would like the Railway Board to consider the feasibility of extending this practice to cover more commodities, as per practice obtaining in other countries.
16	1·114	Do.	The Committee are also concerned about the heavy outstandings relating to Eastern and Central Railways. The outstandings over one year and ten years old on the Eastern Railway are considerable. The Committee need hardly stress the need for tightening up the machinery for the expeditious clearance of both current and old outstandings on these two Railways.
17	1·147	Do.	The Committee are unhappy to note that the position of late start of goods trains has deteriorated in recent years. There has been a steep rise in the figures of total late start hours in most of the Railways. In the case of Central Railway (BG) and Northeast Frontier Railway the position is very unsatisfactory. On these Railways the average late start per goods train ranged between 1 hr. 1 mt. to 1 hr. 31 mts. in 968-69 and 1969-70. This needs to be looked into.
18	1·148	Do.	The Committee feel that with the improvements in traffic facilities, as a result of completion of remodelling of yards, line capacity works, doubling of important trunk routes, etc. and introduction of diesel and electric traction as per Plans, it should have been pos-

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			sible for the Railways to improve on their past performance or at least arrest any deterioration. The Committee need hardly emphasize that late starts are not only an unsatisfactory feature of train operation but have considerable financial implications leading to increase in operating and other expenses of the Railways. It is, therefore, in the interest of economy and efficient operation of train services that the late start hours of the Railways are reduced to the barest minimum.
19	1 149	M/ Railways.	The Committee would like the Railway Board to evolve a Procedure whereby responsibility of the staff for late starts is fixed and adequate action is taken against the staff at fault.
20	1·150	Do.	The theft of overhead copper wires has been adduced as the main reason for late start of most of the trains. The Committee feel that the replacement of copper wires by ACSR (Aluminium Conductor Steel Reinforced) wires, which is stated to be in progress, should be expedited and completed as early as possible.
21	1·151	Do.	The Committee note that the figures for late start to goods trains are not being maintained on the Eastern Railways. The Committee fail to understand how the late start of goods trains on this Railway is being watched without these figures. The Committee would like the Railway Board to look into the matter urgently and apprise the Committee of action taken to keep an effective match on late start of goods trains on Eastern Railway.

22	2.28	Do.	The Committee regret to note that because of the delay in the indigenous development of components for power packs used in Disel Locomotives, the Railway Board had to import Suri Transmission and reversing gear boxes from West Germany involving large amount of foreign exchange.
23	2.29	Do.	The Committee further note that an indigenous manufacturer offered, first in August, 1965 and again in October, 1966 to manufacture and supply Suri transmissions and reversing gear boxes according to the requirements of the Chittaranjan Locomotive Works, but these offers were summarily rejected by the Railway Board. Asked about the reasons for rejecting these offers, it was stated in evidence that as the design had not been finalised, the offers from the indigenous manufacturer could not be considered. This does not appear to be correct because when the offer made by the indigenous manufacturer in August, 1965 was forwarded by the N.R.D.C. to the Railway Board, no such reason was given for the rejection of this offer. Instead the Railway Board had decided that the manufacture of Suri transmission etc., should be done in some Railway Workshop or some Public Undertaking. At the same time the N.R.D.C. was directed to approach other indigenous manufacturer in view of the exclusive licence asked for by M/s.....Again in October, 1966, when the offer of the indigenous manufacturer was renewed the General Manager (CLW) testified that the Suri Transmissions, as per CLW's requirements, could be produced by the indigenous firm. But still the Railway Board did not agree to accept this offer, even though the firm had by then given up the plea of exclusive licence. In the meantime, a decision had already been taken

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			in March, 1966 to make a change over from 'My back' to 'Mak' type of diesel engine and the design of the Suri Transmission was thus settled.
24	2.30	M/Railways.	The Committee are constrained to observe that no proper assessment of the indigenous capacity was made by the Railway Board either in 1965 when the first order of 32 sets of Suri Transmissions was placed or in 1967 when the second order of 15 sets was placed with the German firm. The Committee feel that if the offer of the indigenous firm had been accepted in November, 1965 or at least in October, 1966 the import of the second lot of 15 sets of Suri Transmission etc., from Germany for which order was placed in November, 1967 could have been avoided. The indigenous firm on whom an order for 18 sets of Suri Transmission etc. was placed in November, 1967 have demonstrated their ability to produce the Suri Transmission by actual performance.
25	2.31	Do.	It is also seen that in 1968, 45 spare parts of Suri Transmission and reversing gear boxes were imported even though indigenous capacity existed for the manufacture of these parts. Here again even a formal enquiry was not made from the indigenous manufacturers as to whether they could supply these parts.
26	2.32	M/Railways. DGTD	From the facts as mentioned above the Committee are led to the conclusion that no serious effort was made by the Railway

			Board to explore the possibility of developing the manufacturing capacity for Suri Transmission etc. indigenously. The Capability of the indigenous manufacturer does not appear to have been gone into earnestly even through their terms and conditions were favourable in so far as the cost element was concerned. DGTD does not appear to have been consulted at any stage. There is nothing to show whether the requisite clearance was obtained from them before ordering imports of Suri Transmission and their spare parts.
27	2·33	M/Railwys.	The Committee cannot but resist the conclusion that the Railway Board for reason best known to them were more interested in importing power packs used in Diesel engines than in indigenous development of Suri transmission. This indifferent attitude of the Railway Board has cost the country considerable foreign exchange and extra expenditure which worked out to Rs. 27.2 lakhs and Rs. 1.86 lakhs respectively in respect of the second lot of 15 sets imported.
28	2·65	Do.	The Committee are unhappy to note that the equalising beams on all the 117 coaches supplied by the firm were found defective and had to be replaced by the Northeast Frontier Railway at a cost of more than Rs. 3.51 lakhs. It has been stated that investigations into the causes of failures of these beams have revealed that they were due to the different class of steel used and manufacturing defects in the manufacture of the beams. The Committee were also informed during evidence that a claim had been preferred against the firm for reimbursement of cost of replacement of the defective beams al-

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			though no settlement had yet been reached. The Committee desire that the Railway Board should actively pursue the matter with the suppliers and apprise them about the outcome.
29	2·66	M/Railways	The Committee further note that in the case of North Eastern Railway, where 80 per cent of the beams failed, the Administration is not in a position to identify the manufacturers and are therefore unable to prefer any claim for replacement. The Committee feel that such a contingency should have been foreseen by the Railways. In any case, the Committee hope that they will profit by this experience and will take suitable measures to safeguard their interests in the future.
30	2·67	Do.	According to the Audit para the cases of breakages of beams on the Western Railway have been reported to the manufacturers for replacement. The Committee would like the Railway Board to take follow-up action on their claim against the manufacturers.
31	2·68	Do.	The Committee view with concern the derailment of coaches resulting from the failure of equalising beams as also the breakages of beams due to overcrowding on trains. These problems need to be looked into carefully. It was stated during evidence that certain modifications have been made in the design of the beams particularly in the swan neck section, to make it stronger. The Committee desire that the Railway Board should review in detail how the failure

occurred in this vital section of the beam and take suitable remedial measures to safeguard against the recurrence of such defects.

32	2·94	Do.	The Committee regret to observe that no realistic assessment of the requirements of train lighting cells was made by the Railway Board before ordering import of 23,000 cells on an urgency basis which involved foreign exchange expenditure of about Rs. 38.47 lakhs. Instead of working out their requirements on the usual basis of past consumption, stock in hand and indigenous capacity, the Railway Board adopted a rough and ready method by taking note of the outstanding indents of the previous years which were not covered by the running contracts and the current year's indents. The figure so arrived at was compared with a rough assessment of the indigenous capacity available. They had not checked up the actual consumption of these cells in the immediate past from the Railways. The Committee note that all cells imported on an urgency basis could not be put to use because of delayed supplies in some case of other ancillary materials like electrolyte, connectors and acid, etc. The Railways were carrying a stock of the order of 24,288 cells in May, 1969.
33	2·95	M/Railways. DGTD	The Committee also observe that the prescribed procedure of obtaining clearance from the DGTD from the point of view of indigenous availability before arranging import was also not followed.
34	2·96	M/Railways.	The Committee in para 3.90 of their 116th Report (Fourth Lok Sabha) had recommended that the Railway Board should study all cases of imports in detail and evolve an appropriate procedure to

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			ensure that proposals for import are not cleared except after a searching scrutiny to meet compelling needs. The Committee are informed that an office order detailing the procedure to be followed in such cases has already been issued for the guidance of officers and staff. The Committee trust that the revised procedure would ensure that imports are not made unless it is patently clear that the requirements cannot be met from indigenous sources.
35	2·110	M/Railways	The Committee are surprised that the Central Railway Administration raised the imprest of M.S. Hex Nuts 1½" from 56.9 tonnes in 1961 to about four times in August-September, 1962 without correlating it with past consumption and future curtailment of the requirement resulting from the modification adopted in 1960 in the design of the brake beams and brake blocks. Had the Central Railway taken into consideration the Railway Board's directive issued only a year earlier regarding the adoption of the change in design involving fastening of the brake beams and brake blocks by cotters instead of nuts and the low rate of consumption of the nuts over the previous three years, a realistic assessment of the requirement of the nuts would have been made and the imprest would have been reduced rather than enhanced. The Committee find it a little difficult to understand how the Railway Administration overlooked these two very important factors. Evidently the provision of the Nuts was done mechanically and injudiciously without taking into consideration all the relevant aspects of the matter.

36	2·111	Do.	The Committee need hardly stress the importance of correct provisioning of stores in the interest of economy. They hope that such instances of over-provisioning of stores will not be repeated in future.
37	2·112	Do.	The Committee were given to understand that the excess stock to the extent of 2,30,000 Kilogrammes was disposed of by inviting tenders. They would like to be informed about the loss, if any suffered on this account. The Committee would also like to be apprised of the final outcome of the compensation claim of a firm stated to be under consideration.
38	2·125	Do.	The Committee are distressed to observe that even though complaints were being received from the engineering subordinates since July, 1965 about heavy shortage of cement received by them, no action was taken to revise the procedure regarding issue of unqualified Railway receipts till November, 1968. The Committee are not able to appreciate how Railways assumed that DGS&D were exercising checks on the weight of cement bags, without making any specific enquiry. In any case complaints regarding shortage which had been coming in since 1965 should have been checked up with DGS&D to make sure if random checking of the cement bags was being done by their inspectors in the factories.
39	2·126	Ministry of Railways. DGS&D	The Committee are informed that all the cement suppliers have been warned by DGS&D to ensure correct weight in the cement bags failing which action against them would be taken under Weights

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			and Measures Act, apart from administrative action. The Committee would like the Railway Ministry to issue suitable instructions to the Railway Administration regarding the procedure to be followed by the receiving departments for initiating action against the defaulting suppliers under Weights and Measures Act. The Committee desire that the position may be reviewed after the revised procedure has been tried for about two years.
40	2·127	M/Railways. D.G.S. & D.	The Committee also feel that D.G.S. & D. on their part should take steps for exercising at least random quantitative checks on cement bags at the inspection stage. It may not be possible for all Government departments to have arrangements for weighment of individual cement bags on receipt. In the circumstances it will be for D.G.S. & D. to ensure that besides quality, the quantity of cement supplied to Government departments is also suitably checked.
41	2·141	M/Railways.	The Committee observe that the Northern Railway failed to follow the standard procedure laid down when a consignment of paper is found to be defective. In the first instance, some quantity of the defective paper was consumed to the detriment of Railway's claim on the supplier without waiting for the report of the Deputy Controller (Inspection), to whom samples had been sent for laboratory test. Secondly the Railway Administration failed to take up the matter of defects in the supplies with the Mills as advised by the D.G.S. & D.

			And thirdly there was unreasonable delay in informing the Deputy Controller (Inspection) about the defects noticed in the paper.
42	2·142	Do.	The Committee are surprised to learn that although, at one stage it had been decided to put this paper to alternative use, in actual fact it was utilised for the 'indented purpose'. This needs to be looked into.
43	2·143	Do.	The Committee would also like to know whether responsibility for the delays at various stages has been fixed and suitable action taken against those responsible for the lapse.
44	2·144	M/Railways. Deptt. of Supply	The Committee would like Ministry of Railways to issue detailed standing instructions, in consultation with Department of Supply to obviate recurrence of such instances.
45	2·160	M/Railways.	The Committee regret to observe that in the contract entered into with the firm in 1962, there was no built-in provision for safeguarding the monetary interests of the Railways if the firm used the scrap for a purpose other than manufacturing CI Sleepers. When a new contract with the firm was entered into in 1965, the Railways failed to obtain Bank guarantee to fully safeguard their interests. The Committee take a serious view of this lapse and desire that responsibility for it should be fixed and the Committee informed of the action taken.

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46	2·161	M/Railways.	The Committee are surprised to learn that following a special police enquiry a ban was imposed on the supply of pig iron and coal etc. to the firm, but the Railways who had been dealing with the firm for quite some time had no information about the action taken against the firm. This illustrates lack of co-ordination amongst various Ministries/Departments of Government of India. The Committee recommend that a detailed procedure should be laid down to ensure that action initiated against any firm/party by one Government Department is notified to all other Government Departments/Ministries for information and necessary action.
47	2·162	Do.	The Committee would also like to be apprised of the outcome of claim filed by the Railway Administration with the Official liquidator.
48	3·19	Do.	The Committee note that an order for manufacture of 1,000 wagons was placed on the Golden Rock Workshop by the Railways in 1961; and again for 500 wagons in 1963. These orders were placed to meet the pressing requirements of wagons for the Railways as also to utilise gainfully the staff who were expected to become surplus as a result of wage incentive scheme. While the Committee appreciate the considerations for placing orders on the Workshop even when it had no previous experience of manufacturing wagons, they feel that adequate precautions were not taken to eliminate

			chances of occurrence of manufacturing deviations and manufacturing defects. The Committee feel that no deviation from the prescribed specifications/components should have been allowed without prior consultation with the Research, Designs and Standards Organisation which also works under the Railway Board. Secondly, the inspection organisation should have been suitably strengthened to ensure that no shortcomings were allowed to creep in during the process of manufacture and that rigid standards were enforced at the time of final passing.
49	3·20	Do.	The Committee understand that the Railways are switching over from one type of manufacture to another in various Workshops under their control to match the changing requirements. The Committee are keen that the Railway Board should learn from the costly lapse that has occurred in the present case and devise remedial measures to ensure that such instances of vital defects creeping in the process of manufacture sholud not be allowed to recur on the plea of manufacture being taken up for the first time.
50	3·52	Do.	The Committee note that the actual production in the Chittaranjan Steel Foundry, even after providing alternative load in the shape of castings which were not originally planned for, is below the full capacity production. Against the 10,000 tonnes capacity tar-

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			getted to be reached by September, 1966, the actual production had reached 7718 tonnes in 1967-68 and 8602 tonnes in 1968-69.
51	3·53	M/Railways.	The Committee note that as against the installed capacity of 1000 tonnes, the annual target production of the manganese steel crossings section of the Steel Foundry has been scaled down to 350 tonnes only. Even then the actual availability of load per annum has been much less. The total quantity of manganese steel crossings manufactured during 1967-68 and 1968-69 were only 99 tonnes and 198 tonnes respectively. Similarly the total quantity of fresh orders received for manganese steel crossings during 1969-70 was only 205 tonnes.
52	3·54	Do.	The Committee further note that in the initial stages the production of bigger sizes of crossings like 1 in 20 and 1 in 16 crossings was taken up as the comparative usefulness of manganese crossings over built up crossings in these sizes is far more than on 1 in 12 and 1 in 8½ sizes. However, the production is now concentrated on 1 in 12 and 1 in 8½ sizes in view of the smallness of the orders for the bigger size crossings.
53	3·55	Do.	The Committee also note that as stated by the Railway Board "the use of cast manganese steel crossings is necessarily limited as they can be used only with wooden sleeper assemblies, the supply of

			which is restricted and the use of cast manganese steel crossings of smaller dimensions is not essential but only desirable."
54	3·56	Do.	The Committee are constrained to observe that before planning of capacity for the manufacture of manganese steel crossings at the Chittaranjan Steel Foundry, no detailed assessment of the sustained requirements of different sizes of crossings was made nor the financial and technical implications of providing manganese steel crossings in the yards etc. adequately examined.
55	3·57	Do.	The Committee would like the Railway Board to make a thorough enquiry as to why the capacity of the manganese steel crossings section as also the overall capacity of the Steel Foundry are not being fully utilised and have not reached the optimum stage in production and to initiate remedial measures.
56	3·58	Do.	The Committee would also recommend that sustained efforts should be made to bring down the present rate of rejections of crossings (over 25 per cent) to within the normal rejection rate of 10 to 15 per cent.

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57	3·70	M/Railways	The Committee are not convinced by the explanation offered by the Railway Administration that the manufacture of mechanical stokers was suspended as due to dieselisation and electrification their need for use in the steam locomotives receded. Even at present the South Eastern Railway has as many as 509 steam locomotives.
58	3·71	Do.	As has been pointed out by Audit the suspension of manufacture of stokers is primarily attributable to the unsatisfactory performance of the seven stokers manufactured by the Railway. The Committee are informed that trials carried out by South Eastern Railway with the imported stokers did not yield any firm conclusions. At the same time it has been stated that Railways did not have any prior experience of mechanical stokers for WG class of locomotives.
59	3·72	Do.	The Committee are unhappy to note that the Railways proceeded with the manufacture of as many as 20 mechanical stokers without having any previous experience and without waiting for the conclusive results of trial with the imported stokers, thereby incurring an infructuous expenditure of Rs. 8.43 lakhs.
60	3·73	Do.	The Committee need hardly emphasise that before embarking on any new Project there should be adequate planning and the pros and cons should be carefully gone into. The Committee would

			like the Railway Board to examine whether the capacity rendered surplus following suspension of manufacture of stokers is being fully utilised.
61	4·25	Do.	The Committee are concerned to note that out of 5250 I.C.F. coaches put into service since 1955 upto April, 1968, as many as 2442 coaches were found to be severely affected by corrosion upto April, 1969. The repairs to these coaches are estimated to cost about Rs. 2.18 crores.
62	4·26	Do.	It is seen that although the need for very high standard of maintenance of these coaches was realised and emphasised even at the design stage, no detailed instructions were issued to the Zonal Railways as to how these coaches, which were very much different from the conventional coaches which they had been handling so far, should be maintained particularly to prevent the onset of corrosion. The Committee feel that, knowing fully well that the trough floor of these coaches was designed to take 70 per cent of the buffing force and that climatic and usage conditions in India were widely different from Switzerland from where Schlieren type coach concept was taken, the Railways should have kept close and more intensive watch in conjunction with I.C.F. and Research, Designs and Standards Organisation on the performance of these coaches. Had such care been taken the corrosion problem could have been forestalled by taking timely remedial measures.

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63	4·27	M/Railways.	The Committee desire that Railways should now take planned action without delay to repair 2442 coaches which are reported to be severely affected by corrosion.
64	4·28	M/Railways. Planning Commission	During evidence the Committee were informed that the corrosion constituted a big problem and a Committee was being set up by the Planning Commission for investigation of the same. The Committee feel that the proposed committee, if not set up so far, should immediately be constituted and its terms of reference should *inter alia* cover a thorough study of corrosion problem in Railway coaches.
65	4·29	M/Railways.	The Committee also desire that the work relating to redesigning of window to arrest corrosion on pillar parts, side walls etc. of the coach should be expeditiously completed by RDSO and effective remedial measures teken.
66	4·37	Do.	The Committee note that 1964, 1401 locomotives had been brought under internal water treatment either through the fitment of dosing gears or by mannually dosing the chemical. The number of locos treated externally came down to 256 in 1964 from 967 in 1956. However, the 14 water softening plants continued to be operated for treatment of water upto 1967 and 1968 resulting in extra ex-

			penditure of Rs. 1.59 lakhs during the period. The Committee consider that with the progressive decline in the number of locos requiring external treatment, the water softening plants should have been closed down earlier.
67	4·38	Do	The Committee find that out of 7150 locos on all Railways requiring treatment for softening of water only 3057 locos have so far been fitted with the dosing gears. Since the Railways have now several years of experience of working of dosing gears for softening of water for steam locomotives and the cost is also admittedly cheaper than of softening water externally through water softening plants, the Committee would like Railways to instal dosing gears or resort to manual dosing of chemicals on the remaining steam locomotives and save on the water softening plants if any, still functioning on the Railways for boiler feed purposes.
68	4·48	Do	The Committee note that within a year of installation at a cost of Rs. 1.65 lakhs, the weighbridge at Bhaga had to be closed down because of declining trend of traffic. The closing down was expected to result in an annual saving of Rs. 1.78 lakhs. The weighbridge was, however, re-opened in October, 1969 as its closure had 'generated complaints about inordinate delay in weightment and issue of railway receipts' for the wagons weighed at neighbouring station Bhojudih.

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69	4·49	M/Railways.	It is obvious from the facts of the case that the economy aspect of the installation of a 100 ton weighbridge or its re-opening after closure was never considered. The 100 ton weighbridge was installed at Bhaga because there was no other suitable place for installing the weighbridge which had already arrived. It was re-opened because its closure had given rise to some complaints.
70	4·50	Do.	The Committee are of the view that the installation of the 100 tons weighbridge was not indispensable and could have been avoided on economic considerations.
71	4 61	Do.	The Committee note that only a small percentage of the quantities of quarry products collected each year was trained out directly from the river bed. The average of 10 years comes to about 34 per cent only. The rest of the quarry products had had to be carted to the high grounds in any case during all these years.
72	4·62	Do.	From the information made available to the Committee it is noted that the comparative cost of carting the products to the high grounds is considerably lower than the cost of training out of products directly from the river bed. The Railway Board have admitted that this aspect had not been considered earlier although this system had been in operation for a very long time. In the circumstances, the Committee would suggest that a thorough study be made

			about the economics of carting the products to high grounds *vis-a-vis* laying of siding in the river bed and the position reviewed in the light of the findings.
73	5·17	Do.	The Committee note that the main consideration for providing a 'fly-over' in Naihati Yard was the anticipated increase in coal traffic which was expected to increase from 882 wagons in 1962 and 982 wagons in 1962-63 to 1280 wagons at the end of the Third Five Year Plan i.e. by March, 1966. From the information furnished to the Committee, it is however, seen that in February, 1966 when the abstract estimates were sanctioned, the daily average was 851 loaded wagons and in June, 1966, when the tenders were called this figure stood at 796 wagons only. Again in February, 1967, when the contract was awarded, the daily average was of the order of 859 wagons only. The Committee feel that in view of the considerable disparity between forecastes and actual materialisation of coal traffic reappraisal of the need for the work was called for which was unfortunately not done at the appropriate time.
74	5·18	Do.	The Committee trust such lapses will not be allowed to recur. The Committee would also like to be apprised of the outcome of the arbitration proceedings currently in progress on the contractor's claim.
75	5·29	Do.	The Committee observe that the requirement of earthwork as also the availability of earth in the railway borrow pits was not properly assessed when the abstract estimate was sanctioned. The

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			difference between the approximate estimates of earthwork in the sanctioned abstract estimate and the final estimate based on cross section measurements alone is of the order of 22 lakhs cft. In all there was an under estimation to the extent of 96 lakhs cft. of earthwork, for which a fresh contract at higher rates involving additional expenditure of Rs. 9.5 lakhs had to be given.
76	5·30	M/Railways.	Since the work on the Wadi Yard remodelling scheme already sanctioned in May, 1962 was under execution in phases, it is reasonable to expect that the implications of this scheme should have been foreseen by the Railway Administration before the doubling project was finalised in January, 1964.
77	5·31	Do.	The Committee cannot resist the conclusion that the extra expenditure of Rs. 9.5 lakhs could have been reduced if a proper and realistic assessment of the work involved had been made before awarding the contracts for earthwork in 1964.
78	5·40	Do.	The Committee observe that the economics of different kinds of gradients had not been carefully considered by South Central Railway. One of the main considerations for easing the gradient was to enable steam locomotives to haul a full train load of 2250 tons without banking. From the statistics furnished to the Committee, it is seen that during the period from April, 1964 to

			August, 1969 the average gross load hauled never exceeded 1600 tonnes for train hauled by steam engine and 1900 tonnes for a train hauled by diesel engine. The gradient of 1 in 200 was found quite adequate for haulage of trains with this much of load.
79	5·41	Do.	The Committee feel that if a proper assessment of the traffic requirements had been made, it could have been possible initially to plan a gradient of 1 in 200 instead of 1 in 250. That would have avoided the extra expenditure of Rs. 4.88 lakhs incurred on the provision of wider banks to suit the gradient of 1 in 250.
80	5·42	Do.	The Committee would like to stress the need for extra caution and abundent care in planning of such works in future.
81	5·57	Do.	The Committee regret to observe that the work planned in 1957-58 to be executed at a cost of Rs. 35.38 lakhs was completed after 10 years by incurring expenditure which was more than double the amount initially estimated. Besides the increased cost, the Railway Administration continued to incur an expenditure of Rs. 94,000 per year towards the cost of staff which was expected to be reduced after the commissioning of the works.
82	5·58	Do.	From the information made available to the Committee, it is seen that there was inordinate delay at every stage of planning and execution of the work. It took the Administration four years before the abstract estimate for the work was sanctioned. After the tenders had been accepted, the Administration took 6 months in placing the contract. Again although the contract was awarded in April, 1962

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			the Contractor could not commence to the work before August, 1964 due to non-finalisation of the plan. Even this plan was modified after two months and the final plan was given to the contractor only in May, 1965. The Administration took five months more in determining the additional requirements of material consequent on the revision of the Plan and another 9 months in executing the new agreement with the contractor.
83	5·59	M/Railways.	The Committee feel that if the Project to replace the system of mechanical operation of points and signals with Route Relay Interlocking at Delhi Main Station had been properly conceived and planned, at least some of the changes subsequently made could have been anticipated and provided for reducing thereby the inordinate delay in the execution of the work and the expenditure on staff.
84	5·75	Do.	The Committee note that the estimates which envisaged creation of capacity at Lumding Yard to receive and deal with 1040 wagons per day had been sanctioned in December, 1963 and the original plan for remodelling of Badarpur Yard providing 8 sorting lines with ancillary facilities was finalised by the Railway Administration in August, 1965. The estimate for the Badarpur Yard remodelling work was sanctioned in December, 1966 and the contract costing Rs. 10.37 lakhs was awarded in March, 1967. The contract was terminated in August, 1967 after a portion of work valuing Rs. 79,000 had been done.

85	5·76	Do.	The Committee regret to observe that the Railway Administration failed to make a realistic appraisal of their requirement in January, 1967 when the new yard at Lumding was commissioned. They proceeded with the awarding of the contract for the Badarpur Yard remodelling work in March, 1967, without taking into consideration the fact that following the commissioning of the Lumding yard trains marshalled therein could by-pass Badarpur Yard. The decision arrived at in August, 1967 for terminating the yard remodelling work could well have been taken in January, 1967 itself.
86	5·77	Do.	The Committee are also unhappy to note that work awarded in December, 1964 in connection with the construction of a goods shed was ultimately dropped in September, 1967 for want of traffic justification. Although the project was estensibly dropped on grounds of economy, from the information made available to the Committee it appears that there was hardly any justification for the provision of a shed at Badarpur. The Committee would like to emphasise that such projects should be undertaken only after most careful planning and taking all relevant factors into account.
87	5·78	Do.	The Committee would also like to be apprised of the outcome of arbitration proceedings initiated by the contractor for claiming compensation on account of termination of the contract.
88	5·86	Do.	The Committee find that there was no overriding justification

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			for making a departure from the standard conditions of contract and practice under which the use of 'bazar' cement was prohibited in works executed through the agency of contractors. They are not convinced by the explanation that the Administration would have been called upon to incur extra expenditure on storage depots if they had undertaken to supply Railway cement to the contractor. The average quantity of cement used on the works referred to in the para, each year comes to about 2,500 tonnes. This much of cement could have been issued from the three cement depots already existing and two more depots set up at Devlali and Pachora which according to Railway Board did not have any transport facilities for delivery of cement to the contractors. Such an arrangement, besides avoiding an extra expenditure of Rs. 93,445 on account of Sales Tax would have ensured that 'bazar' cement which is prohibited was not used by the contractor. The Committee are of the view that deviation from the prescribed procedure should not be resorted to unless there are compelling circumstances to warrant other action.
89	5·97	M/Railways.	The Committee are distressed to observe that although the work had been sanctioned under urgency certificate there was undue delay in finalisation of yard plans and bridge drawings. While the work

			was to be completed by March, 1960, the last drawing was finalised only in November, 1960. Because of this the contractor had to be given two extensions for completing the work.
90	5·98	Do.	The Committee also regret to observe that due to their failure first to appoint an arbitrator when the contractor sought arbitration in November, 1963 and further to submit a panel of arbitrators within the stipulated time, the Railway Administration lost a valuable opportunity. The Committee note that Railways not only forfeited their claim against the contractor but were in fact obliged to pay a big sum to the contractor as per award. The Committee would like Railways to investigate the matter fully and fix responsibility for delay and lack of care in safeguarding Railway's interests. The Railways should also take remedial measures to ensure that such lapses do not recur.
91	6·27	Do.	The Committee observe that facilities at cost of Rs. 6.58 crores were provided by the Southern Railway in the Guntakal-Hospet section in order to cope with the anticipated traffic of 2 million tonnes of ore. The actual traffic materialisation over a number of years was far below the anticipated figure with the result that facilities provided were not fully utilised.
92	6·28	Do.	The Committee feel that adequate attention was not paid by the Railway Administration to the scrutiny of the traffic estimates

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			put forward by the Minerals and Metals Trading Corporation and as has been admitted by the Chairman, Railway Board, they were guided more by optimism than by the actuality of the position then obtaining. The Committee have made some recommendations on this aspect elsewhere in the Report, which they would like to be considered by Railway Board.
93	6·29	M/Railways.	The Committee are not fully satisfied with the arguments put forward for non-closure of six stations, which the Construction Branch of the Southern Railway and the Divisional Superintendent had recommended for closure. The Committee would like the Railway Board to examine afresh whether any of the existing stations can be dispensed with without in any way affecting the efficiency of operation.
94	6·52	Do.	From the facts placed before them the Committee cannot help feeling that from the very beginning the assessment made by the Railway Administration regarding additional traffic consequent on the setting up of Neyveli Lignite Project was anything but realistic. The estimate of the traffic furnished by the Neyveli Lignite Corporation (NLC) turned out to be highly inflated inasmuch as against 205 wagons per day anticipated to be moved, the actual traffic moved was a mere 30 to 35 wagons. On top of this, the Railways

on their part instead of critically examining the position planned to develop rail capacity for 240 wagons per day, that is 35 wagons more than estimated by N.L.C. The Committee are not inclined to accept the Railway Board's statements that 'the prospects of traffic likely to be offered by the NLC for transport by rail were assessed after detailed discussion with concerned authorities at different levels' and 'the position was under constant watch by the Administration'. Had this been done, the traffic forecast would not have gone so completely wrong. When the assessment was first made during 1963, the production in the NLC had not started and taken shape and hence the targets as given by the Project authorities should have been treated as tentative to be subjected to continuous review in the light of the actual trends of production and traffic offerings. The Committee regret that no reviews were made until 1968 when it was too late as almost all the works had been completed. Thus rail programme was not coordinated and corelated to the production levels reached in the NLC and the actual materialisation of traffic from year to year was not kept in view. Had adequate caution been exercised the wide gap between the actual traffic and that anticipated in December, 1964 and March, 1966 would have suggested to the Railway Administration the need for a reappraisal of the position. It does not behove a commercial organisation like the Railways merely to accept the statement/assessment of the other public undertaking without a critical scrutiny of the position. It was clearly the duty and responsibility of the Railways to have promptly reduced or revised and not relied upon the advice of the Deputy General Mana-

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			ger/T. & W. of NLC in January, 1965 to the effect that their production would be ready for movement from about June, 1965.
95	6·53	M/Railways.	The Committee also note that a substantial portion of the output of NLC was moved out by road transport. This aspect, however, appears to have been completely lost sight of when the estimates of anticipated traffic were worked out by the Railway Board. The Committee would stress that in the process of assessment of traffic the impact of road transport on the Railway's share of goods traffic should be constantly kept in view. The Committee cannot resist the conclusion that the entire planning of the work was faulty and unrealistic.
96	6·54	M/Railways. Department of Mines & Metals	The Project authorities are equally at fault inasmuch as they exaggerated their production estimates. By any standard, the figures given out by the Project authorities were too optimistic and far from being realistic and reasonable.
97	6.55	M/Railways.	The general question as to how the proposals emanating from public undertakings/private bodies etc. for provision of new/additional facilities should be scrutinised by the Railways before agreeing to provide such facilities deserves special attention. The Committee are informed that the traffic estimates given by various departments/Ministries are being thoroughly scrutinised by the Railway Board in association with the Planning Commission. Besides

			this the financial arrangement with the intending parties is now governed by Codal provisions. While the Committee note that attention is now being given to the proper scrutiny of the initial estimates of traffic, the Committee feel that it would be worthwhile if some procedure is evolved under which periodic assessment of traffic materialisation *vis-a-vis* the progress in the execution of the capacity works is carried out as a matter of regular practice. In this connection the Committee would like to make a reference to the observations contained in para 1.24 of their 22nd Report (Fourth Lok Sabha) which reads as under:
			"It is not business like for a commercial organisation like the Railways merely to accept the statements/assessments of other Ministries without critically examining the position themselves. Even when estimated traffic was not forthcoming, the Ministry of Railways did not promptly reduce or revise the programme merely because everybody was confident that they would produce the goods."
98	7·7	Do.	The Committee regret to observe that the instructions issued by the Railway Board in July, 1960 were not given effect to till 1st April, 1968. It appears the economics of the proposal was never given a serious consideration. The Eastern and Northern Railway Administrations succeeded in thawarting the implementation everytime the matter was raised by the Railway Board. The Committee fail to understand why suitable arrangements for stabling the dining car Mughalsarai and necessary arrangements for detaching it at Mughalsarai could not be made earlier.

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99	7·8	M/Railways.	The Railway Board should ensure that all proposals aimed at curbing avoidable expenditure are implemented expeditiously.
100	7·26	Do.	From the information furnished to the Committee it is observed that the overall cost of haulage of goods traffic by diesel locomotives on the longer route namely Bina-Bhopal-Nagda-Kota is much less than what it would cost for haulage of the same traffic by the shorter Bina-Kota route by steam traction. In the absence of complete information on the subject, Audit had worked out that the diversion of traffic from shorter route resulted in a loss during the period July, 1965 to December, 1967. The Railway Board have worked out the comparative cost of haulage of goods traffic by the two routes and have come to the conclusion that there was actually a saving of Rs. 18.23 lakhs instead of the loss as worked out by the Audit. The Committee understand that the calculations made by the Railway Board are under scrutiny by Audit and would like to be apprised of the final results.
101	7·27	Do.	The Committee regret that the Railway Board failed to furnish requisite information to Audit in this case well in time. The Committee need hardly emphasise that Railway Board should ensure that in future all the relevant information asked for by Audit or that which is considered necessary for being shown to the Audit is made

			available to them at the appropriate time. There should be no occasion for Audit to have to complain about such matters.
102	7·28	Do.	The Committee note that in 13 cases goods traffic is being hauled by routes other than the shortest routes because the latter were either not properly developed or are uneconomical in operation. From the information furnished to the Committee, it is seen that in some cases the cost of operating a longer route is more than what it should be if this traffic is diverted to the shortest route. In such cases it has been pleaded that the additional cost involved in developing the shortest route would far outweigh the additional cost being incurred in the haulage of goods traffic by longer routes. The Committee desire that Railway Board should keep the position under constant review and watch the economy aspect.
103	7·29	Do.	The Committee feel that Railways have been using BOX wagons for quite some time and it should now be possible for them to devise measures to obviate the admittedly undesirable practice of return of loaded BOX wagons to the point of their origin. The Committee hope that the instance like the one referred to in the Audit para would not be allowed to be repeated.
104	8·9	Do.	The Committee regret to note that there was a failure on the part of N.E. Railway in not following the orders of the I.R.C.A./Railway Board properly. This needs to be looked into with a view to fix responsibility.

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105	8·10	M/Railways	The Committee are informed that the undercharges during the period from April, 1963 to May, 1965 consequent upon wrong fixation of carrying capacities have been assessed for the three stations referred to in the para. The Committee would like that an assessment of the under charges on other stations, if any, may also be made.
106	8·11	Do.	The Committee would also like to be informed of the action taken against the staff held responsible for the lapses which have resulted in financial loss to the Railways.
107	8·17	Do	The Committee are unhappy that even though the instructions regarding freight charges on consignments booked in BFU type well wagons were notified in the Goods Tariff, these were not followed strictly by several Railway Administrations thereby resulting in considerable undercharges.
108	8·18	Do.	The Committee hope that sustained efforts will be made to recover all outstanding undercharges. At the same time it should be ensured that such lapses do not recur.

109	8·22	Do.	The Committee would like to be apprised of the action taken against the staff found responsible for delay in the notification of the revised distance between Soron and Kasganj stations consequent on realignment of the line.
110	8·28	Do.	The Committee note that instructions have been issued to all the Railways to tighten up their supervisory machinery. They hope that the instructions would be strictly implemented.
111	8·29	Do.	The Committee note that Rs. 3,16,547 out of Rs. 4,69,218 raised on account of undercharges pointed out by audit have been recovered. They desire that vigorous efforts should be made to recover the balance outstanding.
112	8·30	Do.	The Committee would like that the exhaustive review stated to be in progress should be completed expeditiously and steps be taken to recover the undercharges, if any, assessed after the review.
113	9·11	Do.	The Committee are not satisfied with the explanation given by the Railway Administration that caustic embrittlement of boilers in 1964 was so widespread that the problem had to be tackled on a war footing by setting up a field organisation of water treatment Khalasis and that the Khalasis were withdrawn after the position had stabilised. It is well-known that chemical treatment is a preventive measure to obviate caustic embrittlement and if this treatment had been introduced as a regular measure and applied at all the watering stations round the year from 1961 itself by entrusting

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			the work to existing traffic staff and fitting dosing gears extensively, the crisis would not have developed in 1964.
114	9·12	M/Railways.	Moreover, the treatment of water is a regular and continuous measure and each time the water is fed into the engine it has to be treated. Therefore the work which is now being handled by the same staff could have been done by the same staff from the very beginning. Obviously the separate field organisation of Khalasis was not created to repair the damaged boilers so that they could be withdrawn "after the position had stabilised". They were required to treat water fed into engines and that work still continues. If they can be dispensed with now, it should have been feasible to do without them in the beginning also.
115	9·23	Do.	The Committee are unhappy to note that due to lack of an efficient organisation and system of collection, the Eastern Railway had to suffer a loss of Rs. 4.22 lakhs on account of short recovery of brass borings. It is regrettable that no fool proof procedure was evolved by the authorities in workshop for collection and accountal of the valuable material since 1965 when the machining of brass bearings was taken up by the workshop. Only after the loss had been pointed out by Audit, a Fact Finding Committee was appointed to look into the matter.

116	9·24	Do.	The Committee feel that whereas it may now be possible to fix responsibility for the past losses sustained efforts may not be made to implement the recommendations of the Fact Finding Committee so that there is no scope for any future loss.
117	9·25	Do.	From the information furnished to the Committee it is seen that in certain workshops the percentage of recovery is as high as 100 per cent but in the case of C&W Kanchrapara and Lallaguda workshops the recovery percentage is much less. In order to ensure maximum collection, realistic standards of recovery of quantity of borings may be fixed in each workshop and adequate machinery should be evolved to have periodical checks and reviews at the appropriate level.
118	9·30	Do.	The Committee desire that the negotiations with the Ministry of Finance and Reserve Bank should be expeditiously pursued and a sound procedure may be evolved to minimise the holdings and transportation of liquid cash.
119	9·37	Do.	The Committee desire that the progress of the cases stated to be *sub-judice* should be watched and adequated action should be taken after the courts have given their verdict.
120	9·40	Do.	The Committee desire that efforts should be made to ensure that all such cases of loss of cash from the travelling cash safes and station staff, short receipt from the State Bank etc. are finalised quickly.

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121	9·56	M/Railways.	The Committee view with concern the increasing amount of losses adjusted each year in the Appropriation Accounts. The amount of Rs. 3.43 crores adjusted towards losses during 1968-69 was in fact the highest over recorded in the last 9 years. It is seen that though the number of accidents are showing a declining trend, the amount of loss during 1968-69 as compared to 1967-68 was much more in all cases such as losses on account of accidents, thefts, fires etc.
122	9·57	Do.	The Committee find that there are still a large number of recommendations of the Railway Accidents Inquiry Committee, 1968 which are awaiting implementation. They should be processed expeditiously and implemented without further loss of time
123	9.58	Do.	The Committee are also unhappy to note that the recommendations by them in their earlier Reports about the determination of losses relating to thefts and other deficiencies in fittings of rolling stock and their exhibition in Annexure H to the Appropriation Accounts had not been implemented fully by several Railways so far. The Railway Board should take speedy action for their implementation.
124	9·59	Do.	The Committee are also unhappy to note that the incidence of fires on the Central Railways has not been adequately investigat-

ed. The Committee fully endorse the following observation made in the Railway Accidents Inquiry Committee Report *viz.* We are unable to see any special reasons why the Central Railway should be less able to locate the causes of fires in passenger trains than its other counterparts and should accept the position with complacency."

GMGIPND—LS II—1364 (Ai) LS—9-9-71—1250.

Sl. No.	Name of Agent	Agency No.
	DELHI	
24.	Jain Book Agency, Connaught Place, New Delhi.	11
25.	Sat Narain & Sons, 3141, Mohd. Ali Bazar, Mori Gate, Delhi.	3
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27.	J. M. Jaina & Brothers, Mori Gate, Delhi.	11
28.	The Central News Agency, 23/90, Connaught Place, New Delhi.	15
29.	The English Book Store, 7-L, Connaught Circus, New Delhi.	20
30.	Lakshmi Book Store, 42, Municipal Market, Janpath, New Delhi.	2[illegible]
31.	Bahree Brothers, 188 Lajpatrai Market, Delhi-6.	27
32.	Jayana Book Depot, Charkparwala Kuan, Karol Bagh, New Delhi.	66
33.	Oxford Book & Stationery Company, Scindia House, Connaught Place, New Delhi-1.	68
34.	People's Publishing House, Rani Jhansi Road, New Delhi.	76
35.	The United Book Agency, 48, Amrit Kaur Market, Pahar Ganj, New Delhi.	8[illegible]
36.	Hind Book House, 82, Janpath, New Delhi.	95
37.	Bookwell, 4, Sant Narankari Colony, Kingsway Camp, Delhi-9.	96
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38.	Shri N. Chaoba Singh, News Agent, Ramlal Paul High School Annexe, Imphal.	77
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39.	The Secretary, Establishment Department, The High Commission of India, India House, Aldwych, LONDON W.C.-2.	59

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